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

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Report No.: 50-250/91-26 and 50-251/91-26

Licensee: Florida Power and Light Company
9250 West Flagler Street
Miami, FL. 33102

Docket Nos.: 50-250 and 50-251 License Nos.: DPR-31 and DPR -41

Facility Name: Turkey Point Units 3 and 4

Inspection Conducted: July 8-12, 1991

Inspectors: Gloria B Kuzo 12 August 1991
G. B. Kuzo Date Signed

Gloria B Kuzo 12 August 1991
for E. D. Testa Date Signed

Accompanied by: A. T. Boland

Approved by: 8/13/91
J. P. Potter, Chief Date Signed
Facilities Radiation Protection Section
Radiological Protection and Emergency
Preparedness Branch
Division of Radiation Safety and Safeguards

SUMMARY

Scope:

This routine, unannounced inspection of the licensee's radiation protection (RP) program involved review of health physics (HP) activities including program organization and staffing, management and administrative controls, employee training and qualifications, personnel exposure monitoring and assessments, radioactive material and contamination control, and ALARA program implementation; review of solid waste processing and transportation activities; and followup of previously identified followup issues, and licensee actions regarding previous enforcement actions.

Results:

Licensee actions to fill the vacated Health Physics Supervisor position with a qualified individual were timely and expected to maintain continuity for ongoing radiation protection activities and initiatives. The Radiation Protection (RP) technician staffing provided sufficient HP job coverage for current outage activities. Comprehensive and effective HP training/retraining programs were conducted in accordance with procedures and/or 10 CFR Part 19

requirements. Identified strengths included the current audit program, personnel exposure administrative controls and records, internal exposure monitoring and assessment, and ALARA program planning and implementation during the dual unit outage. All internal and external exposures were within 10 CFR Part 20 limits. Ongoing licensee initiatives for a planned low-level interim radioactive waste storage facility were reviewed and determined to be adequate. Respiratory protection and radioactive waste program weaknesses were noted by cited and non-cited violations for failure to follow respiratory protection and HP surveillance procedures, and for failure to maintain a continuously operable and monitored telephone line for use with hazardous material transportation activities. Additional poor practices were noted for general housekeeping, radiological controls (general postings and labels, and contaminated tool control), and industrial safety activities associated with selected radiologically controlled areas (RCAs).

The following cited and non-cited violations (NCVs) were identified:

- NRC-identified violation for failure to follow HP respiratory protection procedures for (1) issuing and using a full face respiratory protection mask, and (2) verifying Grade D air quality for a compressor supplying the station breathing air system. Two examples of a violation of Technical Specification (TS) 6.11.1.

- Licensee-identified violation for failure to follow HP surveillance procedures for documenting completed surveys of materials released from the RCA. NCV of TS 6.11.1 with licensee corrective actions completed prior to the end of the onsite inspection.

- NRC-identified repeat violation for failure to follow HP surveillance procedures for labelling an onsite storage cask containing radioactive material in excess of 10 CFR, Part 20, Appendix C limits. Violation of TS 6.11.1.

- NRC-identified violation for failure to maintain a continuously operable emergency response telephone line for use with hazardous transportation activities in accordance with 49 CFR 172.604(a). Violation of 10 CFR 71.5 requirements.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*J. Arias, Technical Advisor
*J. Balaguero, Acting, Technical Department Supervisor
*W. Bladow, Quality Assurance Manager
*J. Danek, Health Physics, Corporate Office
*H. Harween, Supervisor, Health and Safety
*V. Kaminskas, Superintendent, Operations
*J. Kirkpatrick, Supervisor, Emergency Planning
*J. Knorr, Regulatory Compliance Supervisor
*J. Lindsey, Supervisor, Health Physics
*M. Mayland, Superintendent, Maintenance
*L. Nee, Supervisor, Safety
*J. O'Brian, Superintendent, Quality Control
#*L. Pearce, Plant Manager
D. Powell, Superintendent, Licensing
K. Rowe, Radwaste Engineer
R. Schubert, Supervisor, Radwaste

Other licensee employees contacted included engineers, technicians, operators, and office personnel.

Nuclear Regulatory Commission

#R. Butcher, Senior Resident Inspector
*G. Schnebli, Resident Inspector
*L. Trocine, Resident Inspector

*Attended March 1, 1991, Exit Meeting
#Participated in July 16, 1991, teleconference

2. Organization and Staffing (83729)

The inspector reviewed the RP organizational structure, selected staff qualifications, and licensee and contractor staff levels utilized for the current dual unit outage activities.

a. Organization

Cognizant licensee representatives outlined changes implemented since the previous NRC inspection of RP activities conducted from February 25 through March 1, 1991, and documented in Inspection Report (IR) 50-250, -251/91-08. No significant organizational changes were identified. Three supervisors responsible for operations, technical support, and administrative tasks, continued to report directly to the HP supervisor. Responsibility for routine

and outage RP activities and radioactive waste (Radwaste) processing continued to be detailed to five Health Physics shift supervisors (HPSSs) reporting to the operations supervisor. Currently three specialists and a supervisor, reporting directly to the Technical Support Supervisor, were providing ALARA program guidance. Licensee representatives informed the inspector that an additional ALARA specialist position recently was approved within the technical support area. In addition, an instrumentation supervisor, and three engineers involved with Radwaste, technical support, and operations, respectively, continued to report to the technical support supervisor. Dosimetry/records and administrative support supervisors, and a procedure/training coordinator reported to the administration supervisor. From review of licensee operations during tours of facility, no concerns regarding the current organization structure were noted by the inspector.

No violations or deviations were identified.

b. HP Staffing and Qualifications

TS 6.3 requires that HP Supervisor qualifications meet or exceed the specifications of Regulatory Guide 1.8 or compensatory action is taken in which the Plant Nuclear Safety Committee determines that the action meets the intent of TSs. In addition, each facility staff member must meet or exceed the minimum qualifications of ANSI N18.1-1971.

The qualifications of the individual selected in June 1991 to fill the recently vacated HP Supervisor position were reviewed and discussed with licensee personnel. The selected individual's educational qualifications included a bachelor of science degree with additional training involving nuclear theory and HP training. Experience included approximately 13 years of applied radiation protection activities of which 11 years involved work at commercial nuclear facilities. The inspector noted the new HP Supervisor selected met the TS requirements and the licensee's timely action in filling the vacated position was expected to maintain continuity for ongoing RP initiatives and activities.

Current Turkey Point Nuclear (TPN) Florida Power and Light (FP&L) Company HP staffing included 59 Radiation Protection Man (RPM) technician positions allocated to the onsite RP program. At the time of the onsite inspection, two RPM technician vacancies were noted. Licensee representatives stated that all RPM staff were qualified in accordance with ANSI 18.1 criteria. No significant changes were expected in the technician staffing. The Technical Support Supervisor position, vacant since July 1, 1991, was to be filled in September 1991. All other supervisory positions allocated to the RP group were staffed. The current RP staff and supervisory personnel appeared adequate to provide coverage for outage activities. No

concerns regarding the FP&L, TPN permanent HP staff qualifications or staffing levels were identified.

No violations or deviations were identified.

c. Contractor HP Technicians

Licensee representatives stated that in November 1990, approximately 220 contractor HP technicians were hired for the dual unit outage. At the time of the onsite inspection approximately 108 contractors remained on site, including 29 dosimetry/control point and six decon personnel. From observations of work activities in progress and discussions with selected workers, no concerns were identified regarding the current contractor HP technician staffing levels.

Licensee representatives stated that increased supervisory review of field activities continued relative to previous outages. Further, two lead technicians continued to be assigned to both the Refueling Floor and Biowall access control points. The lead technicians monitored and supervised entry, and coordinated activities within each area. During tours of the Unit 3 (U-3) containment, the inspector reviewed and verified implementation of RPM and supervisory staff assignments. From discussion with selected work groups and observation of outage activities, the inspector noted that HP technician coverage appeared sufficient for the jobs in progress.

No violations or deviations were identified.

3. Training and Qualifications (83729)

10 CFR 19.12 requires the licensee to instruct all individuals working or frequenting any portion of the restricted area 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 functions of protection devices employed, applicable provision of Commission regulations, individual's responsibilities and the availability of radiation exposure data.

a. General Employee Training (GET)

Licensee Administrative Procedure 0-ADM-306, General Employee Plant Access Training, dated December 19, 1989, describes the training program for employees who require unescorted access to the TPN plant site. GET is divided into two categories. Category I is provided to employees requiring unescorted access to the protected area while Category II, Radiation Controlled Area Training (RCAT), is provided to employees requiring unescorted access to the RCA. Both categories require trainees to pass an exam with a minimum of an 80 percent score. RCAT also requires trainees to pass performance tests. No procedural changes were noted for the GET Program since the last

inspection in this area conducted February 25 - March 1, 1991, and documented in IR 50-250, -251/91-08.

The inspector reviewed GET records for both Category I and Category II (RCAT) training. The training documentation for selected workers involved in the Unit 3 Key Way Gate repair, Spent Fuel Pool Transfer Canal surveys, and other recent outage activities indicated that all worker GET was current and that individuals had passed written examinations with a greater than 80 percent score.

No violations or deviations were identified.

b. Health Physics Technician Training

Licensee Administrative Procedure 0-ADM-360, Health Physics Department Personnel Training and Qualifications, dated June 15, 1991, provides for initial and continuous training programs for both Health Physics Administrative Technicians (HPATs) and RPMs. Initial training is provided to ensure a base knowledge of health physics fundamentals and to verify performance of job related skills. Continuing training is designed to provide training on plant and industry changes, lessons learned, performance weaknesses, and emergency duties. As applicable, completion of satisfactory job performance measures and an 80 percent exam grade are required to demonstrate an understanding of the material presented.

Upon review of the RPM Training Program, dated May 1991, and discussions with cognizant licensee personnel, the inspector noted RPMs are provided with two cycles of continuing training a year with each cycle consisting of approximately 40 hours of instruction. HPATs were provided continuing training as delineated in the HPAT Training Program, dated April 1991.

Since the previous NRC inspection of the HP training program conducted from February 25 through March 1, 1991, and documented in IR 50-250, -251/91-08, Cycle I of the RPM continuing training was provided in April - May 1991. The training primarily focused on implementation of the health physics aspects of the TPN Emergency Plan but also included modules on heat stress, and hot particle control. The course materials reviewed appeared to address properly the scope of the training. No specific plant systems training was provided in the initial 1991 RPM continuing training; however, the Cycle II training to begin in September 1991 was scheduled to dedicate one day to specialized training on valves and charging pumps. Licensee representatives stated that the scheduled training will include full use of mock-ups and will integrate maintenance personnel.

The inspector also reviewed the licensee's program for weekly and shift/special briefings provided for both contractor and company technicians. The licensee appeared to have a timely and thorough

program for informing personnel of recent procedural changes, items of non-compliance, industry events, and special items of interest. The inspector particularly noted that the recent NRC violation regarding posting of radioactive waste and the subsequent procedural changes were addressed in weekly briefings as well as a June 1991 Shift Briefing.

Licensee procedure O-ADM-360, also requires that contract Health Physics Technicians, RPMs, and Junior RPMs, successfully complete performance tests prior to performing a duty without direct supervision. The inspector reviewed records for randomly selected licensee and contractor HP technicians and verified satisfactory completion of job performance measures. In addition, from discussions with selected contractor technicians, the inspector determined that the personnel had received training as appropriate. The overall program for RPM technician training, including continuing and shift training, appeared comprehensive and effective.

No violations or deviations were identified.

4. Respiratory Protection Program (83729)

10 CFR 20.103(c) permits the licensee to maintain and to implement a respiratory protective program that includes, at a minimum: air sampling to identify the hazards; surveys and bioassays to evaluate the actual exposures; written procedures to select, fit and maintain respirators; written procedures regarding supervision and training of personnel and issuance of records; and determination by a physician prior to use of respirators that the individual user is physically able to use respiratory protective equipment.

a. Program Implementation

TS 6.11.1 requires procedures for personnel radiation protection to be prepared consistent with the requirements of 10 CFR Part 20 and be approved, maintained, and adhered to for all operations involving personnel radiation exposure.

Health Physics Administrative Procedure O-HPA-060, Respiratory Protection Plan, dated August 5, 1990, provides guidelines and general information for maintaining, issuing, and using respiratory protective equipment to limit inhalation of airborne radioactive material. A successful medical exam and completion of respiratory protection training are required prior to respirator initial use and annually thereafter. A quantitative fit test is required prior to use and biennially thereafter.

Health Physics Surveillance Procedure O-HPS-063.4, Selection and Issue of Respiratory Protection Equipment, provides the implementing guides for selecting appropriate respiratory protection equipment to

limit the inhalation of airborne radioactive material and for the issuing and tracking the use of respiratory protection equipment.

The inspector selectively reviewed current respiratory protection program records to verify training, completion of individual physicals, and fit testing for individuals in activities requiring the use of respiratory protection equipment as specified by selected Radiation Work Permits (RWPs). From a review of records and discussion with licensee representatives, the inspector determined that an individual assigned to a RWP requiring the use of a full face respirator was not qualified to use the respirator due to a lapsed fit test. The non-qualified individual worked on RWP 91-2717, Rinse and Perform Initial Surveys of the Unit Spent Fuel Pool Transfer Canal, on July 9, 1991, wearing a full face respirator. The individual's fit test qualifications had expired June 30, 1991. The individual was an HP technician, who had transferred from St. Lucie, checked the RWP requirements and self-issued the respiratory equipment. The inspector informed the licensee representatives that the failure to follow HP respiratory protection procedures to issue respiratory protection equipment to qualified workers in accordance with O-HPS-63.4, was an example of an apparent violation of TS 6.11.1 (50-250, -251/91-26-01).
After the apparent violation was identified the licensee determined that Enclosure 1 of O-HPS-063.4 did not list correctly the Respirator Codes; however, a correct revised list of codes had been distributed and was available at the respiratory issue location. In a subsequent July 16, 1991 teleconference, the licensee informed the inspector that a thorough review of respiratory issue records found one other individual who was not qualified to wear the issued respiratory equipment.

During the facility tours, the inspector noted that all full-face respirators available for issuance at the dress out building location were stored, individually bagged, and labelled as required by licensee procedures. The inspector verified that a current weekly printout of respiratory qualifications was available for use by the issuer.

One example of an apparent violation for failure to follow HP respiratory protection procedures for issuance and use of a full-face respirator was identified.

b. Breathing Air Quality

10 CFR Appendix A, Footnote (d) requires adequate respirable air of the quality and quantity required in accordance with NIOSH/MSHA certification described in 30 CFR Part 11 to be provided for atmospheric-supplying respirators.

30 CFR 11.121 requires that compressed, gaseous breathing air meets the applicable minimum grade requirements for Type 1 gaseous air as

set forth in the Compressed Gas Association (CGA) Commodity Specifications for Air, G.7.1 (Grade D or higher quality).

Health Physics Administrative Procedure O-HPA-060, Respiratory Protection Plan, dated August 5, 1990, requires that station breathing air compressors, portable breathing air compressors, and compressors used to fill SCBA air bottles to be sampled quarterly in accordance with Surveillance Maintenance Mechanical Procedure O-SMM-101.1, Grade D Breathing Air Periodic Testing. Procedure O-SMM-101.1, dated June 15, 1990, details the methodology to be used for testing and certifying breathing air as Grade D.

The inspector reviewed and discussed with licensee representatives the program for testing and qualifying breathing air as Grade D. The inspector was informed that the permanent station breathing air compressors were not being used during the current outage due to the unavailability of adequate component cooling water; instead, portable air compressors were being utilized to supply station breathing air as well as air for specific work projects.

The inspector reviewed recent breathing air testing records for the station breathing air compressors, portable air compressors, and Self Contained Breathing Apparatus (SCBA) bottle filling compressors. Available records indicated that the SCBA compressor and the station breathing air compressors were last tested in August 1990, and the SCBA compressor was mislabelled as being tested "December 1991." No records were available documenting the December 1990 test. No immediate concerns were identified regarding the lack of quarterly testing on the SCBA compressor because cognizant HP and, safety and fire protection personnel indicated an awareness of the compressor inoperability and stated that the compressor had not been used to fill SCBA bottles.

Discussions with cognizant licensee representatives and a review of the program for testing the portable air compressors revealed that no testing for air quality occurred during the period of November 1990 through May 1991 of the current outage. However, portable compressors were in use during this time period to supply air for work requiring the use of forced air respirators (i.e., Unit 4 pressurizer and steam generator work). The 1991 testing of portable compressors consisted of tests conducted on June 3, 1991, and thereafter for a limited number of compressors. Further review and discussions regarding verification of Grade D quality air for the portable compressors in use at the time of the onsite inspection, indicated that compressor No. 30688, one of two compressors being used to supply the station breathing air supply header, had not been tested for air quality. According to licensee representatives, this compressor was placed into service to replace compressor No. 531702 which was relocated to the Unit 3 Spent Fuel Pool on approximately July 8, 1991. Licensee personnel indicated no knowledge of testing the compressor or the overall station breathing air system when

No. 30688 was installed. The inspector informed the licensee that failure to follow HP respiratory protection procedures for air quality testing was an additional example of a violation of TS 6.11.1 (50-250, -251/91-26-01). On July 11, 1991, the licensee tested and subsequently verified Grade D air quality for the compressor.

Subsequent to the onsite inspection, the licensee informed the inspector that a Radiological Investigation Report (RIR) was issued on June 3, 1991, identifying the lack of air quality testing. The immediate RIR corrective actions included testing breathing air compressors in use (completed June 3 and 4, 1991), as well as procedural changes requiring sign-off of certification prior to use. The latter action was scheduled for completion by November 30, 1991. Although the licensee did take immediate corrective actions to ensure breathing air in use at the time was tested, no interim measures were implemented to track the replacement and movement of compressors until such time as the new procedural requirements were implemented. The inspector noted that this failure may have contributed to the use of the untested compressor discussed previously.

Other observations regarding breathing air indicated that compressors used to supply breathing air were not clearly marked or labelled with the certification. In addition, one compressor was placarded indicating that it was being used for breathing air but actually was being used for instrument air.

On July 16, 1991, licensee management contacted the inspector to advise of additional corrective actions resulting from the identified apparent violation. These activities included notification of all departments regarding use of Grade D air and ensuring that all compressors used for breathing are posted with Grade D certification.

An additional example of an apparent violation for failure to follow HP respiratory protection procedures for verifying Grade D breathing air was identified.

5. Administrative and Operational Radiological Controls (83729)

a. Form NRC-4

10 CFR 20.102(b) requires, under certain circumstances, the licensee to obtain a certificate on Form NRC-4, signed by the individual showing each period of time after the individual attained the age of 18 in which an occupational dose to radiation was received. This signed and completed form shall be obtained before permitting the individual in a restricted area to receive an occupational radiation dose in excess of the standards specified in 10 CFR 20.101(a).

To verify completion and maintenance of individual's Form NRC-4, as appropriate, the inspector reviewed selected licensee dosimetry records of workers signed on RWPs initiated/utilized for high dose

rate tasks. The inspector verified a completed Form NRC-4 on file for all workers as applicable.

No violations or deviations were identified.

b. Radiation Exposure Extensions

Licensee procedure O-HPS-031.6, Processing Radiation Exposure Extensions, dated December 12, 1990, details requirements and responsibilities for processing extensions of selected exposure facility guidelines.

The inspector reviewed selected January 1, through June 30, 1991 dose records for personnel who exceeded the licensee's administrative whole body exposure limit of 1800 millirem per quarter (mrem/qtr) requiring HP Supervisor approval. For the personnel reviewed the inspector verified that, as applicable, extensions were approved, and both Forms NRC 4 and NRC 5 were current. The inspector noted that the dosimetry controls and records were considered a program strength.

No violations or deviations were identified.

c. Control of Material Released from the RCA

HP surveillance procedure O-HPS-021.3, Release of Material from the Radiation Controlled Area, dated October 10, 1990, provides guidance for controlling release of bulk material from the RCA. The procedure requires, in part, that all materials released from the RCA be surveyed and subsequent documentation be maintained on Form HP-124.

From discussion with licensee representatives and review of applicable records, the inspector verified that all bulk materials released from the RCA from July 8 through 11, 1991, were surveyed and documentation was maintained in accordance with the applicable procedure.

During review of this program area, licensee representatives informed the inspector of concerns regarding the adequacy of surveys conducted for scrap copper cable released from the RCA on January 30, 1991. Further inspection indicated that the subject event was identified, reviewed, and documented by cognizant licensee personnel in RIR 91-93-1, dated February 6, 1991, and an associated Nuclear Problem Report. The inspector reviewed and discussed with cognizant licensee representatives details of the evaluation, findings, and subsequent actions taken to prevent recurrence of the issue. The report noted that bulk scrap copper material was released on January 30, 1991, from the RCA and that the adequacy of surveys utilized for final release of the materials from the RCA was questionable. Further, the report noted that the appropriate documentation regarding the release surveys was not completed as required. The inspector noted

that the failure to complete proper documentation, Form HP-124, in accordance with procedural guidance utilized for release of bulk materials from the RCA was a violation of TS 6.11.1 (50-250, -251/91-26-02). Further discussions with cognizant licensee personnel indicated that the scrap copper cable was removed from non-contaminated systems and that, at that time the material was surveyed, the cable was determined to be free of measurable contamination. The materials were moved to a staging area prior to transfer from the RCA. The following shift the cable was released from the RCA. All the scrap copper cable released was maintained on site.

After notification of concerns regarding RCA release surveys, HP personnel required the material to be returned to the RCA. All vehicles, equipment, and personnel utilized to transport the materials from the RCA, and the onsite location outside of the RCA where the material was stored were surveyed and verified to be free of contamination. Subsequently, the material was stored within the RCA for approximately three days prior to being resurveyed. Upon resurveying, contamination was detected on some of the copper cable. Licensee followup evaluations indicated that the contamination occurred most likely after the cable was returned to the RCA and resulted from cross-contamination from additional materials placed in the storage area. The inspector reviewed and discussed proposed corrective actions including removing material from the RCA immediately after completion of surveys or securing material after completion of surveys to prevent additional materials from being added to the material awaiting release. In addition, licensee representatives provided the inspector with a memorandum dated February 8, 1991, instructing all HPSSs to verify surveys were conducted and that the responsible supervisor is contacted prior to release of the material from the RCA. The inspector informed licensee representatives that issue and subsequent corrective actions met the conditions of 10 CFR Part 2, Appendix C, V.G.1, and that the failure to follow procedures for releasing bulk materials from the RCA would not be cited.

One licensee-identified NCV for failure to follow HP surveillance procedures for documenting the release of bulk materials from the RCA was identified.

6. Audits (83729)

TS 6.5.2.8 requires audits of facility activities to be performed under the cognizance of the Company Nuclear Review Board (CNRB) encompassing conformance of facility operation to all provisions contained in the TSs and applicable License Conditions at least once per 12 months, and the Process Control Program (PCP) and implementing procedures at least once per 24 months.

During the onsite inspection, Licensee Quality Assurance (QA) personnel informed the inspector that a May 1991 QA audit reviewed selected areas of the licensee's radiological respiratory protection program. The inspector selectively reviewed QA Audit QAO-PTN-91-038, dated June 13, 1991, to determine if findings similar to those identified during the current inspection (Paragraph 4) were identified previously. No issues similar to the current findings were identified. In general, the audit identified concerns regarding respiratory protection program procedural adequacy; calibration of equipment; maintenance, testing and storage of measuring and test equipment used in the program; and storage of selected records. The inspector noted that responses to the identified issues were due on July 14, 1991, and thus, were not available for review during the onsite inspection. Also, the audit noted that requirements of the QA program were effectively addressed by the respiratory protection procedures, and that procedural implementation was effective. The inspector informed licensee representatives that these issues would be reviewed subsequent to completion of the appropriate licensee responses. In general, the inspector noted the audits continued to be well-planned and documented, and contained items of substance related to the overall RP program.

The inspector noted that based on the depth of review and significance of identified issues, the present audit program was considered a program strength and continued to contribute to the RP program improvements.

No violations or deviations were identified.

7. Internal Exposure (83729)

10 CFR 20.103(a)(1) states that no licensee shall possess, use, or transfer licensed material in such a manner as to permit any individual in a restricted area to inhale a quantity of radioactive material in any period of one calendar quarter greater than the quantity which would result from inhalation for 40 hours per week for 13 weeks at uniform concentrations of radioactive material in air specified in 10 CFR Part 20, Appendix B, Table 1, Column 1.

10 CFR 20.103(a)(3) requires for purposes of determining compliance with the requirements of this section, the licensee to use suitable measurements of concentrations of radioactive materials in air for detecting and evaluating airborne radioactivity in restricted areas and in addition, as appropriate, to use measurements of radioactivity in the body, measurements of radioactivity excreted from the body, or any combination of such measurements as may be necessary for the timely detection and assessment of individual intakes of radioactivity by exposed individuals.

a. Whole Body Analyses

Health Physics Administrative Procedure O-HPA-031, Personnel Monitoring of Internal Dose, dated October 15, 1989, requires initial, annual, and termination bioassay measurements for workers

accessing the RCA. The inspector reviewed selected records of recently terminated or hired individuals and verified that whole body analyses were performed as required. In addition, the records of individuals involved in recent outage incidents, including a Reactor Coolant Pump (RCP) Seal Tent event, Unit 3 Loss of Air event, and facial contaminations, as well as routine activities were reviewed. Records for all individuals indicated that current, routine whole body measurements were conducted.

Additionally, the licensee's program for special bioassays was evaluated. Procedure 0-HPA-031 requires that a special bioassay measurement be performed when the following criteria are met: (1) nasal swabs or facial contamination in excess of 5000 disintegrations per minute (dpm); (2) exposure to airborne radioactivity in excess of 30 maximum permissible airborne concentration-hours (MPCa-hrs) in one week; (3) any real or suspected accidental internal exposure; and (4) accumulation of greater than or equal to 10 MPCa-hrs of tritium in one day. The inspector reviewed the RIRs for April through June 1991, detailing individuals reported to have positive facial contamination or potential unanticipated exposure to airborne activity for the events discussed above. For all the reviewed cases, special whole body analyses were conducted in accordance with procedural guidance, and no positive measurements were obtained.

In addition, the inspector reviewed in detail a facial contamination incident which occurred during the onsite inspection. The incident occurred while the worker was removing from the reactor cavity a contaminated vacuum hose used for cleaning. The licensee appropriately conducted special whole body measurements with an initial, maximum permissible organ burden (MPOB) of 4.85 percent Cobalt-60 being measured. After three successive decontaminations and releasing the individual to go home, a negative whole body count was obtained the next morning. The licensee's preliminary results indicated that the measured contamination was primarily external; however, the final RIR and assessment of the incident had not been completed at the conclusion of the inspection. The inspector noted the licensee's preliminary and proposed actions to be appropriate and had no additional questions regarding this issue.

No violations or deviations were identified.

b. Instrumentation and Quality Control

The inspector reviewed and discussed with the licensee future changes to the whole body counting equipment. At the time of the inspection, the licensee continued to use a "moving bed" and a "chair" geometry systems located adjacent to the Health Physics administrative and dosimetry offices. However, licensee representatives indicated that within the next six weeks the new Fast Scan "standing" geometry

counter should be operational. The new system currently was undergoing software verification and validation.

Additionally, the whole body counting Quality Assurance/Quality Control (QA/QC) program procedures and records were reviewed. Specifically, procedure O-HPT-014.5, Calibration and Operation of the Health Physics Whole Body Counter, dated December 7, 1989, describes the daily background and energy calibrations, annual calibrations, and quarterly interlaboratory cross-checks. The inspector verified that daily background and energy calibration checks using Europium-152 were conducted as required, and all of the reviewed data were within the established control limits. The annual calibrations as well as a special calibration due to an amplifier replacement also were reviewed. No concerns were noted.

The licensee's participation in an interlaboratory cross-check program was reviewed. The checks were performed quarterly with an approved vendor. Although the results of 1991 cross-checks were not available for review during the inspection, the December 1990 cross-check was evaluated. The inspector noted that the "moving bed" geometry system failed the cross-check acceptance criteria. This problem has occurred for previous cross-checks conducted. The inspector was informed and verified in procedures that the "moving bed" scanner was used only for routine, qualitative analyses. Any special measurements of suspected intakes were performed using the chair geometry. No problems were noted with the "chair" counter cross-checks.

No violations or deviations were identified.

8. External Exposure (83729)

10 CFR 20.101 requires that no licensee shall possess, use or transfer licensed material in such a manner as to cause any individual in a restricted area to receive in any period of one calendar quarter a total occupational dose in excess of 1.25 rems to the whole body; head and trunk; active blood forming organs; lens of the eyes; or gonads; 18.75 rems to the hands and forearms; feet and ankles; and 7.5 rems to the skin of the whole body.

The inspector reviewed the January 1 through June 30, 1991 cumulative whole body cumulative exposures for both licensee and contractor personnel. The inspector verified that the assigned quarterly doses were within 10 CFR Part 20 limits. The maximum cumulative year-to-date exposure listed was 3458 millirem (mrem) assigned to a contract worker. The inspector verified that exposure history files were completed and extensions were reviewed and granted in accordance with the applicable procedure.

Licensee HP administrative procedure O-HPA-034.2, Determination of Dose to the Skin From Skin Contamination, dated June 20, 1989, details guidance for determining skin dose due to surface contamination. Skin dose calculations are required when total exposure exceeds 25,000 disintegrations per minute-hours (dpm-hrs) for a hot particle.

The inspector reviewed selected RIR data, Personnel Contamination Reports, and Hot Particle Logs issued from January 1, 1991, through July 10, 1991. Skin dose calculations conducted for selected personnel were reviewed and discussed with cognizant licensee representatives. In particular, licensee actions and subsequent preliminary evaluation regarding a July 10, 1991 skin contamination event were reviewed in detail. The contamination was identification as a discrete particle located on a worker's scalp. The inspector reviewed and verified decontamination activities, preliminary activity measurements, stay time estimates and parameters utilized during the evaluation. A preliminary skin dose as measured through a density thickness of 7 milligrams per centimeter squared (mg/cm^2) of 2865 mrem was reported. Licensee actions regarding this issue were considered adequate. For all RIRs reviewed the licensee contamination and skin dose evaluations were considered appropriate.

No violations or deviations were identified.

9. As Low As Reasonably Achievable (83729)

a. ALARA Initiatives

10 CFR 20.1(c) states that persons engaged in activities under licenses issued by the NRC should make every reasonable effort to maintain radiation exposures ALARA.

The inspector reviewed and discussed with cognizant licensee representatives ALARA program implementation and initiatives for selected Unit (U)-3 and U-4 outage activities. In particular, ALARA initiatives concerning Resistance Temperature Detector (RTD) removal, steam generator (S/G) Eddy Current testing (ECT), and use of temporary shielding in containment were reviewed and discussed in detail.

Licensee representatives discussed with the inspector general area dose rate reduction resulting from increased use of temporary shielding within the containments during the current outage. Approximately 120,000 pounds (lbs) of lead shielding were installed in each containment. This compares to previous outages when only one-tenth of this amount of shielding was utilized. Based on an expenditure of approximately 56 person-rem for shielding installation, a subsequent estimated dose rate reduction of approximately 25 mrem/hr, and an estimate of approximately 18500 hours worked in both containments as of June 20, 1991, a total savings of 407 person-rem was estimated for the outage activities completed to date. Licensee representatives stated that additional

dose rate measurements made following completion of the current outage, and/or prior to initiation of subsequent outages would supplement the evaluation of dose expenditure reduction provided by the use of increased temporary shielding.

The inspector reviewed and discussed with licensee representatives the man-rem expenditure for both U-3 and U-4 RTD bypass elimination tasks. An initial estimate of 105 man-rem per unit was projected for completion of the task. Review of preliminary ALARA report data for the RTD by-pass removal task indicated a total of approximately 76 and 54 person-rem expended for U-4 and U-3 RTD removal activities, respectively. Licensee representatives stated that the projected dose expenditures for the U-3 and U-4 RTD bypass elimination tasks, approximately 60 percent less than original estimates, would be among the lowest reported for the industry. The inspector noted that the licensee's preplanning, increased use of temporary shielding, and detailed mockup training were considered program initiatives/improvements contributing to the reduced dose expenditure for the subject task.

In addition, licensee representatives informed the inspector of significant dose reductions, approximately 50 percent, for the 100 percent ECT of the U-4 S/G. A total of 6.89 person-rem was expended relative to an average of 13.3 person-rem previously expended for similar tasks. Identified improvements included pre-wrapped probes on disposable reels, reduced frequency of probe changes, elimination of ECT power sources in containment, increased pull speed for data collection, overhaul and/or testing of ECT equipment prior to installation on S/G platforms, and use of a lead technician to direct HP effort and coordinate ECT work.

Licensee representatives informed the inspector that as of week 30 of the dual unit outage, a total of approximately 642 person-rem as measured by direct reading dosimeter (DRD) had been expended with the majority of dose intensive work completed. Further, this value was less, by a significant margin, than the approximate 900 person-rem projected for the same amount of work.

The inspector informed licensee representatives that their ALARA activities and initiatives associated with the current outage operations were considered a program strength.

No violations or deviations were identified.

b. Performance Parameters

During the onsite audit, the inspector reviewed and discussed with cognizant licensee representatives, selected quantitative parameters regarded as indicators of or which contributed to the RP program effectiveness. The reviewed parameters included person-rem expended,

personnel contamination events (PCEs), and the percentage of the RCA regarded as contaminated.

- Personnel Dose Expenditure: For the period January 1, 1988, through December 31, 1990, the site annual cumulative personnel exposure per unit was approximately 385, 216, and 365 person-rem, respectively. From January 1 through May 31, 1991, a dose expenditure of approximately 238 person-rem per unit was reported with a 1991 annual dose of less than 500 person-rem per unit projected. For week 30 of the dual unit outage which started in November 1990, the licensee reported an expenditure of approximately 321 person-rem per unit, significantly less than the 450 person-rem per unit originally projected for the same period of time and for similar job scope. Licensee representatives stated that increased ALARA initiatives have contributed to the reduced person-rem expenditure.

- Personnel Contamination Events (PCEs): For the January 1, 1988, through December 31, 1990 period, the licensee reported 362, 168, 214, PCEs annually. In particular, the inspector noted a significant decrease for the period January 1 through May 31, 1991, during which the licensee reported approximately 61 PCEs. The licensee projected approximately 121 PCEs for the current year. Discussions with licensee representatives indicated that improvements in laundry facilities, including upgrading of monitoring equipment, utilization of an additional vendor laundry onsite and improved licensee facilities resulted in the noted reduction.

- Contaminated Surface Area Control: The inspector noted the licensee's continued efforts at maintaining reduced contaminated floor space within the RCA during the dual unit outage. As of June 30, 1991, 13,232 square feet, approximately 11 percent, of the 119,015 square feet of total recoverable space within the RCA was maintained as contaminated. This figure was significantly reduced from the 20 percent previously associated with extended outages at the facility. The continued low percentage was attributed to extensive decontamination effort, the use of catch containments, tracking and repair of leaks, and increased awareness of plant personnel regarding contamination control. The licensee was projecting to reduce the area of contaminated space reduced to approximately 6345 square feet, 5 percent by December 31, 1991.

No violations or deviations were identified.

10. Facility Tours (83729, 86750)

During the onsite inspection, the inspector toured selected areas of the U-3 and U-4 Auxiliary Building, U-3 Containment, U-3 and U-4 Spent Fuel Storage Pools, and radioactive waste processing and/or storage locations.

The inspector observed facility operations, and selected work activities to evaluate the implementation and effectiveness of the licensee's RP program. The following specific radiation protection issues and concerns were noted and discussed with licensee representatives.

a. Instrumentation

All survey meters and continuous air monitors in use within the RCA were observed to be operable, calibrated, and source checked daily in accordance with licensee procedures. In addition, background radiation levels at survey locations were observed to be within an acceptable range, less than 300 counts per minute.
No violations or deviations were identified.

b. Notices to Workers

10 CFR 19.11(a) and (b) require, in part, that the licensee post current copies of Part 19, Part 20, the license, license conditions, documents incorporated into the license, license amendments and operation 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 licensed activity locations.

During the inspection, the inspector verified that NRC Form-3 was posted properly at various plant locations permitting worker access to licensed activities. Although the license, associated amendments, and regulations were not posted individually, a reference was posted noting the location and availability of this information. In particular, the inspector verified both of the aforementioned items were posted at the new entrance of the Protected Area at the time of the inspection.

No violations or deviations were identified.

c. Locked High Radiation Areas

TS 6.12.2 requires that areas accessible to personnel with radiation levels greater than 1000 mR/hr at 18 inches to be provided with locked doors to prevent unauthorized entry in addition to the requirements of TS 6.12.1. The keys for the locked high radiation areas are to be maintained under administrative control.

Discussions with licensee personnel and a review of procedure O-HPS-025.1, General Posting Requirements for Radiological Hazards, dated December 30, 1990, indicated that an administrative requirement for posting locked high radiation areas has been established at 800 mR/hr.

During tours of the U-3 containment and the U-3 and U-4 Auxiliary Building, all locked high radiation areas were verified to be locked and conspicuously posted. Observation of work activities in progress related to the U-3 Spent Fuel Pool Transfer Canal survey noted the area to be posted and controlled properly. Initial posting as a locked high radiation area was required due to the presence of dose rates of 1 R/hr and 3 R/hr at 18 inches from two discrete horizontal canal surface areas. However, in lieu of locking the area, continuous HP coverage was provided to maintain positive access control. The locked radiation area controls were maintained until initial decontamination efforts were completed. After decontamination, maximum radiation levels were reduced to approximately 600 mrem/hr, and the licensee subsequently posted and maintained the area as a high radiation area.

No violations or deviations were identified.

d. Labelling and Posting

10 CFR 20.203(e) requires each area in which licensed material is used or stored and which contains any radioactive material in an amount exceeding ten times the quantity of such material specified in Appendix C of this part to be posted with a sign or signs bearing the radiation caution symbol and the words: "Caution, Radioactive Material(s)." 10 CFR 20.203 (f) requires, in part, each container of licensed material to bear a durable, clearly visible label identifying the radioactive contents. The label is to bear the radiation caution symbol and the words "Caution, Radioactive Material," and also provide sufficient information to permit individuals handling or using the containers, or working in the vicinity thereof, to take precautions to avoid or minimize exposures.

Health Physics Surveillance Procedure 0-HPS-041, Control of Radioactive Material Inside the Radiation Controlled Area, dated May 2, 1991, requires, radioactive material to be posted and otherwise identified as required by 0-HPS-025.1. Procedure 0-HPS-025.1, General Posting Requirements for Radiological Hazards, dated December 31, 1990, requires individual containers of radioactive material containing greater than 10 CFR Part 20, Appendix C quantities to be labelled.

During tours of the licensee's radioactive waste storage areas and the Radwaste Building on July 9, 1991, the inspector noted the presence of an onsite storage resin cask within the Radwaste Building which was not labelled or tagged adequately. Although the cask was posted as a "High Radiation Area," no label was present indicating the radioactive contents of the cask or radiation levels, nor was the access to the area controlled. Subsequent surveys by the licensee on July 9, 1991, indicated dose rates of 15 mR/hr contact and 6 mR/hr at 18 inches and licensee representatives confirmed radioactive material contents greater than Appendix C limits. The licensee promptly

labelled the cask with the proper information. According to licensee representatives, the cask was labelled previously; however, in preparation for transport in late May 1991, the label was removed. Subsequently, as a result of radiological concerns, the cask was not shipped as planned, and the required label was not replaced. Therefore, the cask remained unlabelled from approximately late May 1991 through July 9, 1991. The inspector informed the licensee that the failure to follow HP surveillance procedures for labelling the storage cask was an apparent violation of TS 6.11.1 (50-250, -251/91-26-03). The inspector noted that the violation was similar to a violation identified during an inspection conducted February 25 - March 1, 1991, and documented in IR 50-250, -251/91-08. Licensee representatives took prompt action to survey and properly label the cask during the onsite inspection. During a July 16, 1991 teleconference, licensee management informed the inspector of immediate and planned corrective actions related to the improper labelling issue. These activities included: formulation of a team to review all radioactive materials for proper posting and labelling, ensuring that all radiation protection personnel are cognizant of identified labelling problems, development of specific tagging criteria to be incorporated into procedures by August 1, 1991, and a review of previous audits to determine any broad programmatic issues. The inspector acknowledged the licensee's corrective actions and had no additional concerns.

One repeat apparent violation regarding the failure to follow HP surveillance procedures for labelling an onsite storage cask was identified.

e. Independent Surveys

During the facility tours, the inspector independently verified radiation and/or contamination levels in radwaste areas, various Auxiliary Building locations, storage vans, Radwaste Building, radioactive waste shipping containers prepared for transport, and general waste processing/storage locations. The inspector noted that excluding the onsite storage cask (Paragraph 10.d) all containers, materials, and areas were properly labelled, posted, and/or safeguarded in accordance with the radiation hazards present.

f. General Observations

During the plant tours, the following general observations regarding contamination control, general labelling, and industrial safety were noted and discussed with the licensee.

Contamination Control:

- A sea van used to store slightly contaminated lead shielding was found to have a broken side door lock. The licensee expeditiously replaced the broken hasp and locked the van.

- Tools having fixed contamination, painted "purple," were observed in clean areas inside the RCA. One tool was found in a tool box at Gate 50 and another in a clear plastic bag outside the U-3 cask decon area. Contamination surveys indicated that the tools did not have loose contamination and were most likely misplaced during transit to work locations. The licensee expeditiously removed the tools and placed them in proper storage.

- Several examples of equipment and hoses straddling contamination area boundary lines were found. The licensee performed applicable surveys and moved the material to the correct location in a timely manner.

Labelling and Posting:

- Several trash bins in the clean trash sorting area were found unlabelled. The licensee took immediate corrective action to properly label them.

- The inspector noted that individual survey maps were not maintained at the entrance to each room or area. Currently, only selected survey maps are posted at area/building entrances while all survey measurements are posted at the entrance to the RCA for evaluation by entering workers. This area was discussed in-depth with the licensee, and representatives stated that these measures had been implemented to better control the posted information and ensure only current information was available for workers.

- The chicken-wire gate located south and outside of the U-4 Transfer Canal which controls access to a potential locked High Radiation Area during fuel movement was in disrepair.

- A "High Radiation Area" posting was found laying at the base of the west door to the U-3 Spent Fuel Pool. Although the posting was not affixed to the door, the inspector verified access to the area was controlled by the locked door. Licensee representatives indicated that a new adhesive used to attach the sign to the door had failed. Immediate action was taken to replace the sign conspicuously on the door.

- At the U-4 equipment hatch, an unlabelled cart was used for transferring contaminated material.

Industrial Safety:

- The eye wash station at the U-4 guard shed was not pressurized and was inoperable. The licensee had noted this earlier during a site tour and was in the process of correcting the problem.

- Compressed gas cylinders in the Radwaste Building and U-3 Containment Seal Table area were not secured properly. During the onsite inspection, the inspector noted that the licensee took prompt action to remove the cylinder in the Radwaste Building.

- The inspector also noted that no emergency evacuation exit signs directing workers to the outside were posted on the U-3 containment refueling elevation. The licensee agreed to evaluate the placement of "Evacuation" signs in the containments.

In addition to the above, during the tour of the U-3 Containment a test of the containment evacuation alarm was conducted. The alarm was clearly audible by the inspector within the bioshield; however, an announcement preceding the test was not heard. Discussions with licensee representatives and management at the exit meeting indicated that a study of alarm audibility was ongoing to address previously identified concerns in this area. During a July 17, 1991 teleconference, the inspector discussed with licensee representatives NRC Bulletin 79-18, Audibility Problems Encountered on Evacuation of Personnel from High-Noise Areas, and noted that the licensee's evaluation of audibility problems with containment public address system would be tracked as an inspector followup item (IFI) (50-250, -251/91-26-04).

One IFI regarding the review of the licensee's evaluation of the audibility of the U-3 and U-4 containment public address systems was identified.

11. Low-Level Radioactive Waste Storage Facilities (65051)

The Low-Level Radioactive Waste Policy Amendments Act provides for the closing of the Barnwell Waste Management Facility on December 31, 1992. In anticipation of this closing, the licensee's plans for dealing with the closure were reviewed.

The original interim Storage of Dry Active Waste in the Storage Warehouse developed consistent with NRC Generic Letter 81-38, "Storage of Low-Level Radioactive Waste at Power Reactor Sites" was outlined in PC/M 83-24. The storage warehouse provided for approximately 40,000 cubic feet of waste having a total activity of 14.8 curies.

In anticipation of the need to update the Dry Active Waste (DAW) Storage, the licensee has prepared two Request for Engineering Actions (REAs), REA No. 91-092, Requalify Dry Storage Warehouse for DAW Storage, dated April 22, 1991, and REA No. 91-138, Onsite Storage for Spent Resin, dated June 18, 1991. The REAs are currently awaiting prioritization and project scheduling.

49 CFR 172.203(d)(i) requires the description for a shipment of radioactive material to include the name of each radionuclide in the radioactive material and the activity contained in each package of the shipment in terms of curies, millicuries, or microcuries.

49 CFR 172.604(a)(1)(3) requires that a person who offers a hazardous material for transportation must provide a 24-hour emergency response telephone number (including the area code or international access code) for use in the event of an emergency involving the hazardous material. The telephone number must be monitored at all times and entered on the shipping paper.

During the inspection, the inspector observed licensee shipping activity and reviewed the records of radioactive waste shipments 91-048 and 91-050 transported to a radwaste processing contractor. The shipping manifests examined were consistent with the applicable 49 CFR Parts 170 through 189 requirements. The radiation and contamination survey results were within the limits specified for this mode of transport and shipment classification, and the shipping documents were completed and maintained as required.

The inspector telephoned the 24-hour emergency response number listed on the shipping manifest as required by 49 CFR 172.602 for use in the event of an emergency. The call was placed several times during the evening of July 11, 1991, and the inspector was unable to complete the call to the cellular phone maintained by the licensee. Radioactive waste shipment 91-050 left the site on July 11, 1991, and was in transit. A subsequent call to the U-3 and U-4 Control Room was made and they were informed of the unsuccessful attempts to contact the cellular telephone. Approximately 40 minutes later, the licensee was successful in contacting the emergency telephone (cellular telephone). The licensee placed several test calls the morning of July 12, 1991, and obtained unsatisfactory results. The inspector informed the licensee representatives that the failure to provide a reliable 24-hour emergency telephone number in accordance with 49 CFR 172.602 was a violation of 10 CFR 71.5 requirements (50-250, -251/91-26-05).

One violation for failure to provide a reliable 24-hour point of contact for waste shipments was identified.

13. Followup Items (92701)

(Closed) IFI 50-250/89-14-10: Reduce discrepancies in pocket and Thermoluminescent Dosimeter (TLD) measurements.

This item identified large differences in dose measurements between DRDs and TLDs. Differences of approximately 55 and 25 percent for non-outage and outage periods, respectively, were identified.

Discussions with licensee representatives indicated that the Storage Warehouse has never been used as an interim storage facility for dry active waste. Current responsibility for this facility is assigned to the Service Manager. However, when the warehouse begins storing DAW the responsibility for this building is scheduled to be transferred to the Health Physics Section.

No violations or deviations were identified.

12. Solid Radioactive Waste Management and Transportation of Radioactive Materials (86750)

a. Training and Qualification of Personnel

The inspector reviewed the qualifications, training, and experience of selected personnel responsible for the processing, storage, and shipping of low level radwaste and radioactive materials. The inspector noted that radwaste technicians received periodic training in Department of Transportation (DOT)/NRC regulations, waste license burial requirements, and operating procedures for the transfer, packaging, and transport of radioactive material. The most recent training was conducted in two, four day training sessions in June 1991. Approximately 27 persons received the training and were given a written proficiency test. Two of the personnel did not achieve satisfactory grades. One no longer works in the radwaste area and the other, a new employee, does not work independently. The inspector reviewed the training syllabus and noted the contents to be comprehensive.

The inspector noted that the Radwaste training program for shipping and transportation was sufficient to provide adequate training for technicians to perform their duties adequately.

No violations or deviations were identified.

b. Low-Level Wastes Disposal and Transportation

10 CFR 20.311 (b) requires each shipment of radioactive waste to a land disposal facility to be accompanied by a shipment manifest that indicates as completely as practicable: a physical description of the waste; the volume; the radionuclide identity and quantity; the total radioactivity; and the principal chemical form.

10 CFR 71.5 requires that a licensee who transports licensed material outside the confines of its plant or other place of use, or who delivers licensed material to a carrier for transport, to comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 170 through 189.

Licensee representatives discussed changes in dose monitoring and the results achieved to date. In October, 1989 the licensee required DRD dose results less than 10 mrem to be recorded as zero. Previously, a value less than 10 mrem was automatically assigned a value of ten. Licensee representatives stated that from October 1989 through March 1991, the average discrepancies between DRD results and TLD results for non-outage and outage periods were 23 and 15 percent, respectively. In addition, improvements to dose tracking computer system and subsequent assignment of dose for specific tasks by DRD measurements were expected to reduce the identified discrepancies further.

The inspector informed licensee representatives that this item would be considered closed based on the identified improvements and continued actions within this program area.

14. Licensee Actions Regarding Previous Enforcement Items (92702)

(Closed) Violation 50-250, -251/91-08-04: Failure to follow procedures for labelling resin liners maintained in a waste storage area east of the old compactor shed.

This issue involved the failure of workers to implement procedures for labelling resin liners containing radioactive materials. Licensee review of the issue determined the liners erroneously were considered structures within the RCA and as thus did not require labelling.

The inspector reviewed and verified implementation of corrective actions stated in the FP&L response dated May 20, 1991. Surveys and labelling of the containers were completed prior to the end of that onsite inspection. The inspector verified that the applicable procedures were revised to clarify 10 CFR 20.203(f) requirements and, in addition, to detail labelling requirements for on site storage containers. Completion of training for selected RP staff regarding the procedural changes was verified (Paragraph 3).

The inspector noted that a repeat violation was identified during the current onsite inspection (Paragraph 10.d). During an July 16, 1991, teleconference, licensee representatives outlined additional corrective actions regarding the repeat labelling violation. The inspector informed licensee representatives that based on the additional corrective actions proposed and the required response for the repeat violation, this item would be considered closed and subsequent licensee actions would be tracked under item number 50-250, -251/91-26-03 detailed in this inspection report (Paragraph 10.d).

15. Exit Interview (65051, 83729, 86750, 92701, 92702)

The inspection scope and results were summarized on July 12, 1991, with those persons indicated in Paragraph 1 above. The general program areas reviewed and the apparent cited and NCVs reviewed and/or identified during this inspection and listed below were discussed in detail. In particular,

the inspector noted continued concerns regarding the radioactive material/waste storage areas as identified by a repeat labelling violation identified during the current inspection. As a result of the current noncompliance and issues identified during previous NRC inspections, the inspector stated that increased management attention to activities within this program area was needed. The licensee was informed that pending NRC management review, a previous IFI and violation detailed in Paragraphs 13 and 14, respectively, would be closed during this inspection. Licensee representatives acknowledged the inspector's comments and no dissenting comments were received.

During July 16 and 17, 1991 teleconferences, licensee representatives discussed the immediate and long term corrective actions to be taken in response to the NRC issues identified during the inspection. The specific action related to each are detailed in Paragraphs 4, 10.d, and 12.b. The licensee representatives further stated that an effort would be initiated to have Technicians review all health physics procedures for clarity and adequate programmatic guidance.

The inspector informed licensee representatives that although proprietary information was reviewed during this inspection, such material would not be included in the report.

Item Number	Description and Reference
50-250, -251/91-26-01	NRC-identified violation (VIO): Failure to follow HP respiratory protection procedures for (1) issuing and using a full face respiratory protection mask (Paragraph 4.a), and (2) verifying Grade D breathing air quality for a compressor supplying the station breathing air system (Paragraph 4.b). Multiple examples of a violation of TS 6.11.1.
50-250, -251/91-26-02	Licensee-identified VIO: Failure to follow HP surveillance procedures for documenting completed surveys for materials released from the RCA (Paragraph 5.c). NCV of TS 6.11.1 with licensee corrective actions completed prior to the end of the onsite inspection.
50-250, -251/91-26-03	NRC-identified VIO: Failure to follow HP surveillance procedures for labelling an onsite storage cask containing radioactive material in excess of 10 CFR, Part 20, Appendix C limits (Paragraph 10.d). Repeat violation of TS 6.11.1.

50-250, -251/91-26-04	IFI: Review licensee's evaluation and subsequent actions regarding audibility of containment public address systems during outage activities (Paragraph 10.f).
50-250, -251/91-26-05	NRC-identified VIO: Failure to maintain a continuously operable emergency response telephone line for use with hazardous transportation activities in accordance with 49 CFR 172.604 (Paragraph 12.b). Violation of 10 CFR 71.5 requirements.