

# UNITED STATES NUCLEAR REGULATORY COMMISSION

#### **REGION II**

SAM NUNN ATLANTA FEDERAL CENTER 61 FORSYTH STREET SW SUITE 23T85 ATLANTA, GEORGIA 30303-8931

April 29, 2002

Florida Power and Light Company
ATTN: Mr. J. A. Stall, Senior Vice President
Nuclear and Chief Nuclear Officer
P. O. Box 14000
Juno Beach, FL 33408-0420

SUBJECT: TURKEY POINT NUCLEAR PLANT - NRC INSPECTION REPORT

50-250/01-07, 50-251/01-07

Dear Mr. Stall:

On March 30, 2002, the NRC completed an inspection at your Turkey Point Units 3 and 4. The enclosed report documents the inspection findings which were discussed on April 3, 2002 with Mr. J. McElwain and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, the inspectors identified one issue of very low safety significance (No Color). This issue was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-cited violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-cited violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Turkey Point facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document

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system (ADAMS). Adams is accessible from the NRC Web site at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

#### /RA/

Randall A. Musser, Acting Chief Reactor Projects Branch 3 Division of Reactor Projects

Docket Nos. 50-250, 50-251 License Nos. DPR-31, DPR-41

Enclosure: Inspection Report Nos. 50-250/01-07, 50-251/01-07 w/attachment

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FPL 4

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#### U.S. NUCLEAR REGULATORY COMMISSION

#### **REGION II**

Docket Nos: 50-250, 50-251 License Nos: DPR-31, DPR-41

Report No: 50-250/01-07, 50-251/01-07

Licensee: Florida Power & Light Company (FPL)

Facility: Turkey Point Nuclear Plant, Units 3 & 4

Location: 9760 S. W. 344<sup>th</sup> Street

Florida City, FL 33035

Dates: December 30, 2001 - March 30, 2002

Inspectors: C. Patterson, Senior Resident Inspector

J. R. Reyes, Resident Inspector

B. Crowley, Senior Reactor Inspector (Section 1R12.1) E. Lea, Senior Operations Engineer (Section 1R11.2) W. Sartor, Senior Emergency Preparedness Inspector

(Sections 1EP2 - 1EP5, 4OA1.2-4)

G. Kuzo, Senior Radiation Specialist (Sections 20S3, 2PS1,

2PS3)

D. Forbes, Radiation Specialist (Sections 20S3, 2PS1, 2PS3) R. Hamilton, Radiation Specialist (Sections 20S3, 2PS1, 2PS3)

Accompanying Personnel

S. Rose, Operations Engineer

Approved by: Randall A. Musser, Acting Chief

Reactor Project Branch 3 Division of Reactor Projects

# SUMMARY OF FINDINGS

IR 05000250-01-07, IR 05000251-01-07 on 12/30/01 - 3/30/02, Florida Power & Light, Turkey Point Nuclear Power Plant, Unit 3& 4. Physical Protection

The inspection was conducted by resident inspectors, a senior radiation specialist, two radiation specialists, a senior reactor inspector, a senior emergency preparedness inspector, and a senior operations engineer. The inspectors identified one No Color finding, which was a noncited violation. Findings for which the Significance Determination Process does not apply are indicated by "No-Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process web site at

http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html.

# A. <u>Inspector Identified Findings</u>

Cornerstone: Physical Protection

No Color. A non-cited violation of 10 CFR 50.70 (b) (4) was identified for failure to ensure that the arrival and presence of a NRC inspector was not announced or otherwise communicated. A NRC inspector while in the main truck gate control cubicle overheard, when the telephone was answered using the speaker phone, communication by a security supervisor to a security officer announcing the inspector's presence.

This issue is more than a minor because it has the potential for impacting the NRC's ability to perform its regulatory function (Section 3PP2).

# A. <u>Licensee Identified Findings</u>

None

# Report Details

# Summary of Plant Status

Unit 3 operated at power during this inspection period.

Unit 4 operated at power until March 21, 2002, when power was reduced to 50 percent and then taken offline March 23, 2002, for a refueling outage.

# 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity (Reactor-R), Emergency preparedness

# 1R04 Equipment Alignment

.1 Partial System Walkdowns

# a. <u>Inspection Scope</u>

The inspectors conducted partial walk down inspections, to verify the alignment of redundant trains/systems when the other train/system was out-of-service. The inspectors reviewed the licensee's operating procedure, Updated Final Safety Analysis Report (UFSAR) system description, and system drawings to determine that the systems were correctly aligned. The three systems listed below were inspected by partial walkdown:

- 125 volt spare battery while the B battery was out of service
- Unit 3A High Head Safety Injection (HHSI) while the 3B pump was out of service for overhaul
- 4A emergency diesel generator (EDG) just prior to running the 4B EDG

#### b. Findings

No findings of significance were identified.

# .2 Complete System Walkdown

# a. <u>Inspection Scope</u>

The inspectors performed a detailed system walk down on the 4B EDG while the 4A EDG was out of service during a surveillance run. The inspectors reviewed the licensee's operating procedure, Updated Final Safety Analysis Report (UFSAR) system description, and system drawings to determine that the systems were correctly aligned. Valve positions on the engine fuel system, cooling system, starting air system and fuel transfer system were reviewed to verify they were in the correct standby position. The required locked valves were checked to verify the locking mechanisms were correctly installed. Breakers used to provide electrical power to components were reviewed to verify they were in the correct standby position. Plant work orders for the 4A and 4B

EDGs were reviewed to verify any deficient condition did not cause the EDG to become inoperable.

# b. Findings

No findings of significance were identified.

# 1R05 Fire Protection

# a. <u>Inspection Scope</u>

The inspectors toured selected plant areas to evaluate conditions related to control of transient combustibles and ignitions sources, the material condition and operational status of fire protection systems, and selected fire barriers used to prevent fire damage or fire propagation. The inspectors reviewed the licensee's tracking of thermolag repairs to ensure timely completion. The inspectors reviewed the status of the fire/smoke detection system for selected areas. The inspectors reviewed the smoke, heat, and flame detector locations in the enclosures to 0-ONOP-016.8, Response to a Fire/Smoke Detection System Alarm to ensure consistency with actual physical locations of the detectors. The following areas were inspected:

- 3A EDG Room
- 3B EDG Room
- 3A EDG Fuel Storage Room
- 3B EDG Fuel Storage Room
- 4A EDG Room
- 4B EDG Room
- 4A EDG Fuel Storage Room
- 4B EDG Fuel Storage Room

# b. Findings

No findings of significance were identified.

# 1R11 <u>Licensed Operator Requalification</u>

# .1 Quarterly Review

# a. <u>Inspection Scope</u>

On February 5, 2002, the inspectors observed the annual operator re-qualification examination on the simulator. Operations shift 4, crew A, was tested on: Loss of all Power with an Reactor Coolant System (RCS) leak; and, Steam break inside containment with an Anticipated Transient Without Scram and Loss of the 3A 4-Kilovolt bus. Prior to the examination observation, the inspectors reviewed the test packages to verify the expected responses and operator actions were appropriate for the respective scenarios in the use of emergency operating procedures and emergency level classification. The inspectors subsequently reviewed the final crew and individual

examination evaluations to verify any identified issues had been appropriately addressed.

# b. Findings

No findings of significance were identified.

# .2 Biennial Review

# a. <u>Inspection Scope</u>

The inspectors reviewed the facility operating history since the last requalification program inspection for indications of licensed operator performance weaknesses. The inspectors also reviewed the biennial written examinations for several crews and evaluated their effectiveness in providing a basis for assessing operator knowledge of material covered in the requalification training program. Examination quality, licensee effectiveness in integrating industry, plant and student feedback into the requalification training program, and examination development methodology were also evaluated.

The inspectors observed annual dynamic simulator examinations (four scenarios) for two operator crews and JPMs performed by selected individuals to assess the adequacy of the licensee's evaluation of operator knowledge and abilities. During these observations, the inspectors assessed licensee evaluator effectiveness in pinpointing operator performance deficiencies which may require supplemental training. The inspectors also evaluated and observed portions of the walkthrough examination administered during this requalification segment to assess evaluator performance.

The inspectors reviewed and evaluated the licensee's remedial training program for operator deficiencies identified during the previous year. The inspectors also reviewed a sample of on-shift licensed operator qualification records, watchstanding records, and medical records to ensure compliance with 10CFR 55.59, Requalification and 10CFR 55.53, Conditions of License. Specific procedures and documents reviewed are listed in the attachment to this report.

#### b. Findings

No findings of significance were identified.

# 1R12 <u>Maintenance Rule Implementation</u>

#### .1 Periodic Evaluation

# a. <u>Inspection Scope</u>

The inspectors reviewed the licensee's Maintenance Rule periodic assessment, "PTN Maintenance Rule Periodic Assessment," dated March 13, 2001. The report was issued to satisfy paragraph (a)(3) of 10 CFR 50.65, and covered the period November 1998 through December 2000 for Unit 3 and April 1999 through December 2000 for Unit 4.

The inspection was to determine that the assessment was issued in accordance with the time requirement of the Maintenance Rule, and included evaluation of: balancing reliability and unavailability, (a)(1) activities, (a)(2) activities, and use of industry operating experience. To verify compliance with 10 CFR 50.65, the inspectors reviewed selected Maintenance Rule activities covered by the assessment period for the following risk significant systems: Component Cooling Water (CCW), EDGs, Safety Injection (SI), SI Accumulators, and Instrument Air (AI). Specific procedures and documents reviewed are listed in the attachment to this report.

# b. <u>Findings</u>

No findings of significance were identified.

# .2 Maintenance Effectiveness

#### a. Inspection Scope

The inspectors assessed the effectiveness of maintenance on selected structures, systems, and components scoped into the maintenance rule, (10 CFR 50.65) and verified procedural requirements specified in procedure 0-ADM 728, Maintenance Rule Implementation. The inspectors reviewed the characterization of failures, safety significance classifications, and the appropriateness of performance criteria and corrective actions for the following CRs:

•	CR 02-0113	Charging Pump Control Air Tubing Failure
•	CR 02-0064	Failure of Standby Steam Generator Feed Pump
		(SSGFP) During Surveillance.
•	CR 02-0115	4A EDG Voltage Regulator Failure During
		Surveillance
•	CR 02-0311	3B EDG Day Tank Fill Valve Stuck Open

With respect to CR 02-0022, the inspectors reviewed the Unit 3 diesel instrument air compressor issues, apparent causes, and the modified A1 goals as a result of these cold weather repetitive functional failures to verify the licensee adequately addressed the repetitive issues and to verify the modified goal settings adequately addressed the failures.

Unit 3 Diesel Instrument Air Engine Trip On Low Oil Pressure During Cold Weather Operation.

#### b. Findings

# 1R13 Maintenance Risk Assessments and Emergent Work Control

# a. Inspection Scope

The inspectors reviewed the following emergent items, as described in the referenced CRs or work orders (WOs). The inspectors verified that the emergent work activities were adequately planned and controlled, as described in 0-ADM-210, On-Line Maintenance/Work Coordination and O-ADM-225, On Line Risk Assessment and Management. The inspectors verified that, as appropriate, contingencies were in place to reduce risk, minimize time spent in increased risk configurations, and to avoid initiating events. The following items were reviewed:

•	CR 02-0019	SGFP Discharge Valve MOV-3-1420
•	CR 02-0069	3A Moisture Separator Reheater Steam Leak
•	CR 02-0022	Diesel Instrument Air compressor Trip on Low Oil
		Pressure
•	CR 02-0260	Breaker Cubicle Bolts
•	CR 02-0352	Mis-positioned Breakers for Incore Detector Drives,
		MOV-4716A, and 4D Normal Inverter

# b. Findings

No findings of significance were identified.

# 1R15 Operability Evaluations

# a. Inspection Scope

The inspectors reviewed selected operability evaluations affecting mitigating systems and barrier integrity to determine that operability was justified and no unrecognized increase in risk had occurred. The inspectors verified procedural requirements as described in 0-ADM-518, Condition Reports. The following list of CRs and documents were reviewed:

•	CR 01-2483	Auxiliary Feedwater Flow Oscillations
•	CR 02-0080	Temporary Containment Chiller Hoses Still Connected
	CR 02-0127	Power Cable Underneath Charging Pump Room
•	GR 02-0121	Door
•	CR 02-0153	3B EDG Starting Air Pressure Less Than 200 psi
•	CR 02-0166	Demineralized Water Storage Tank Bladder Integrity
•	CR 02-0269	Steam Generator Low Level Set Point Review
•	CR 02-0064 S1	'B' SSGFP Surveillance Failure

# b. Findings

# 1R16 Operator Workarounds

#### a. Inspection Scope

The inspectors reviewed the cumulative effects of the present operator workarounds on the ability of operators to respond in a correct and timely manner to plant transients and accidents. The inspectors reviewed CRs associated with operator workarounds to verify the licensee had identified and implemented appropriate corrective actions. The inspector assessed the timeliness of completed and planned corrective actions to address operator workarounds. Corrective actions, required to remove operator work arounds, which were to be completed during the Unit 4 outage were verified to be planned and/or completed.

# b. Findings

No findings of significance were identified.

# 1R19 Post Maintenance Testing

#### a. Inspection Scope

For the post maintenance tests listed below, the inspectors reviewed the test procedures and either witnessed the testing and/or reviewed test records to determine whether the scope of testing adequately verified that the work performed was correctly completed and demonstrated that the affected equipment was functional and operable. The inspectors verified that the requirements of procedure 0-ADM-737, Post Maintenance Testing, were incorporated into test requirements. The inspectors reviewed the following list of tests:

•	0-OP-074.3	Diesel SSGFP run following hose replacement
•	WO 31009873	Leak and Pressure Test Following Intake Cooling Water (ICW) Basket Strainer Cleaning and
		Inspection
•	P C/M 00-016	Remove Pressure Regulators From Waste Gas Analyzer System
•	WO 31016129	Motor SSGFP following repairs to a leaking engine case fitting.
•	0-OP-062.2	Safety Injection System Inservice Test HHSI Pump
•	CR 02-0305	4C CCW Heat Exchanger Return to Service

#### b. Findings

# 1R20 Refueling and Outage Activities

#### a. Inspection Scope

The inspectors evaluated outage activities during this report period for the Unit 4 refueling outage. The inspectors assessed the adequacy of risk reduction methodologies developed and implemented to control plant configuration.

# Monitoring Of Shut Down Activities

On March 23, the inspectors monitored shutdown activities from the control room to verify that TS cool down restrictions were followed. The inspectors observed performance of operation and surveillance procedures for RCS cool down temperature verifications, and for shut down margin calculations. Additionally, the inspectors reviewed the operable boration flow path and checked alignment of various components from the control room to verify they were in the correct standby alignment.

#### **Electrical Power**

The inspectors reviewed the electrical power system alignment required by TS. Emphasis was placing and verifying that the Unit 4 startup transformer replacement was conducted in accordance with Temporary Procedure 01-023, Unit 4 Setup Transformer Replacement.

#### Refueling Activities

The inspectors observed portions of fuel off-load, fuel reload, and the videotape of the core loading to verify refueling activities were safety conducted. The inspectors reviewed the TS requirements for source range nuclear instrumentation. Refueling communications were monitored to verify compliance with procedural requirements. Plant documents 4-OP-038.1, Preparation for Refueling Activities; 4-OP-040.2, Refueling Core Shuffle; and PC/M 01-065 Revision 1, Unit 4 Cycle 20 Reload Design were reviewed to verify refueling activities were conducted by procedure and design requirements.

#### Spent Fuel Pool Cooling

The inspectors reviewed licensee compliance with TS and UFSAR requirements for core offload restrictions. Safety evaluation PTN-ENG-SEMS00-007, SFP Temperature During Offload Starting Before 150 hours and PTN-SEMS-02-001 Revision 1, Early Core Offload were reviewed and restrictions imposed on offload rate were incorporated into applicable refueling procedures. The inspectors also reviewed spent fuel pool temperature limits.

#### b. Findings

# 1R22 <u>Surveillance Testing</u>

#### a. Inspection Scope

The inspectors verified by witnessing surveillance tests and/or reviewing test data, that the selected testing meet the TS, the UFSAR, and licensee procedure requirements and demonstrated the systems capable of performing their intended safety functions and their operational readiness. The inspectors verified that any components out of their required position where noted and discussed in the remarks section of the applicable procedure. The following surveillances were reviewed:

•	3-OSP-300.3	Safe Shutdown Alternate Shutdown Operability Test
•	4-OSP-202.1	Safety Injection/Residual Heat Removal Flowpath Verification
•	4-OSP-019.1	ICW Inservice Test
•	0-OSP-200.5	Miscellaneous Test, Checks, and Operating Evaluations
•	3-OSP-059.1	Determination of Quadrant Power Tilt Ratio
•	4-OSP-041.7	Reactor Coolant System Heat Up and Cool Down Temperature Verification

# b. <u>Findings</u>

No findings of significance were identified.

# 1R23 <u>Temporary Plant Modifications</u>

# a. Inspection Scope

The inspectors reviewed the current active temporary modifications to verify that risk significant items did not adversely affect the operation of a system that was altered. The inspectors reviewed plant procedure 0-ADM-503, Control and Use of Temporary System Alterations, to verify that the modifications were controlled as required by procedure. In addition, the inspectors toured plant areas and specifically looked for any temporary modifications that might not be identified to ensure that all issues were identified. The inspectors reviewed CR 02-0080, concerning the temporary containment chiller connection still connected after the outage, to determine that this condition met the criteria for a temporary modification. The following active temporary modifications were reviewed:

- TSA 04-01-028-07, Disconnect Rod Position Indication H-6 wire shielding
- TSA 04-01-030-05, Lifted leads on SV-4-2920
- TSA 04-01-047-04, Reactor Coolant Pump Seal leak off alarm

# b. <u>Findings</u>

# **Cornerstone: Emergency Preparedness (EP)**

# 1EP2 Alert and Notification System Testing

# a. Inspection Scope

The inspectors evaluated the alert and notification system (ANS) design and the testing program. The system consisted of 47 sirens within the 10-mile emergency planning zone. The sirens had a biweekly silent test, quarterly growl test, and an annual full-cycle test.

# b. Findings

No findings of significance were identified.

# 1EP3 Emergency Response Organization Augmentation

# a. <u>Inspection Scope</u>

The inspectors reviewed the design of the emergency response organization augmentation system and the maintenance of the licensee's capability to staff emergency response facilities within stated timeliness goals.

# b. Findings

No findings of significance were identified.

# 1EP4 Emergency Action Level and Emergency Plan Changes

# a. <u>Inspection Scope</u>

The inspectors reviewed changes to the Emergency Plan and the emergency action levels (EALs) to determine whether any of the changes decreased the effectiveness of the Emergency Plan. The current Turkey Point Nuclear Plant Emergency Plan was Revision 39, dated December 21, 2001. The review was performed against 10 CFR 50.54(q).

# b. Findings

No findings of significance were identified.

# 1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

# a. Inspection Scope

The inspectors evaluated the licensee's programs that addressed weaknesses and deficiencies in emergency preparedness. Items reviewed included exercise and drill

critique reports and the corrective actions identified therefrom. There had been no actual implementations of the Emergency Plan since the last inspection.

# b. Findings

No findings of significance were identified.

# 1EP6 Drill Evaluation

#### a. <u>Inspection Scope</u>

On February 26, 2002, the inspectors observed portions of the site quarterly emergency preparedness drill at the Operations Support Center and Technical Support Center. The inspectors evaluated the licensee's emergency plan classifications (per the Turkey Point Radiological Emergency Plan) for the simulated plant conditions for a steam generator tube rupture and subsequent loss of offsite power. The inspectors reviewed 4-EOP-FR-P.1, Response To Imminent Pressurized Thermal Shock Condition, and 4-EOP-ECA-3.1, SGTR With Loss Of Reactor Coolant-Subcooled Recovery Desired, with Operations management to evaluate operation of the high head safety injection pumps and the transition within these EOPs. The inspectors discussed drill critique items with the licensee.

# b. <u>Findings</u>

No findings of significance were identified.

#### 2. RADIATION SAFETY

Cornerstones: Occupational Radiation Safety (OS) and Public Radiation Safety (PS)

# 2PS1 Gaseous and Liquid Effluent

# a. <u>Inspection Scope</u>

The operability, availability, and reliability of selected effluent process sampling and detection equipment used for routine and accident monitoring activities were reviewed and evaluated. Inspection activities included record reviews and direct observation of equipment installation and operation. The following effluent monitoring equipment was included in inspection:

- Plant Vent, Special Particulate Iodine Noble Gas (SPING) (RaD-6304)
- U3 and U4 Containment Air Particulate (R3/4-11) and Gas Monitors (R3/4-12)
- Plant Waste Disposal System Monitor (R-18)
- U3 Spent Fuel Pool SPING (RaD-3-6418)

The reviewed records included current calibration data, process monitor SSC maintenance-rule results, DBDs, and plant change modification data listed in the attachment to this report.

During the week of February 4, 2002, the inspectors directly observed process effluent sampling and monitoring equipment material condition, installed configurations (where accessible), and operability; evaluated and local and control room data regarding flowrates and channel responses; and reviewed and evaluated established release set-points. Following system walkdowns, detailed evaluations were conducted regarding the installed U3 SFP SPING configuration against design specifications detailed design drawing 5177-112-J102, Rev. 2.

Program guidance, performance activities, and equipment material condition for the effluent sampling and monitoring equipment were reviewed against details documented in TS, 10 CFR Part 20, UFSAR §11, Offsite Dose Calculation Manual (ODCM), applicable DBDs, ANSI-N13.1-1969, ANSI-N13.10-1974, and associated procedures. Radiation detection and/or sampling equipment required for use in accident monitoring also were reviewed against details specified in NUREG 0737, Item II.F.1, and RG 1.97. The attachment to this report lists the specific procedural and guidance documents used to inspect this program area.

# b. <u>Findings</u>

No findings of significance were identified.

# .2 Effluent Release Processing and Quality Control Activities

During the week of February 4, 2002, the inspectors directly observed and evaluated chemistry staff proficiency in conducting weekly plant vent surveillance activities, including particulate filter and charcoal cartridge change-out and gas sampling and analyses for the plant vent SPING. Also, technician proficiency in conducting pre-release processing, sampling, and gamma spectroscopy analyses to initiate release of the 'E' waste gas decay tank was reviewed. In addition, five effluent release permits previously issued for containment purge, waste gas decay tanks, and liquid monitor tank effluent releases were reviewed, discussed, and evaluated.

The procedures, effluent monitoring tasks, and release permit data were examined in detail to assess sample representativeness, radionuclide concentration lower limits of detection (LLD) and achieved analyses accuracies; pre-release dose calculation completeness and effluent radiation monitor set-point determinations. Interviews were conducted with two chemistry technicians to evaluate staff proficiency and knowledge of effluent release requirements, equipment capabilities, and procedural details.

Both the licensee and vendor laboratories' quality control (QC) program activities for liquid and airborne sample radionuclide analyses were evaluated. The inspectors discussed and reviewed, as applicable, current gamma spectroscopy and liquid scintillation detection equipment calibrations and daily system performance results; preparation, processing and storage of composite samples; radionuclide concentration

LLD capabilities and achieved accuracies; and results of the quarterly cross-check spiked radionuclide samples analyzed during calendar year 2001.

The in-place liquid effluent release equipment, observed task evolutions, and offsite dose results were evaluated against 10 CFR Part 20 requirements, Appendix I to 10 CFR Part 50 design criteria, TS, UFSAR details, ODCM, and applicable procedures as documented in the attachment to this report. Laboratory QC activities were evaluated against RG 1.21, Measuring, Evaluating and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials In Liquid and Gaseous Effluents from Light-Water Cooled Nuclear Power Plant, June 1974; and RG 4.15, Quality Assurance for Radiological Monitoring Programs (Normal Operation) - Effluent Streams and the Environment, December 1977.

# b. <u>Findings</u>

No findings of significance were identified.

# .3 Problem Identification and Resolution

#### a. Inspection Scope

Licensee Condition Reports associated with effluent monitoring program activities were reviewed. Five CRs identified within this program area as documented in the attachment to this report were reviewed and evaluated in detail. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve the identified issues.

# b. Findings

No findings of significance were identified.

# 2PS3 Radiological Environmental Monitoring Program (REMP)

.1 Radiological Environmental Monitoring Program (REMP) Implementation

# a. <u>Inspection Scope</u>

The licensee's 2000 Annual Radiological Environmental Operating Report describing Radiological Environmental Monitoring Program (REMP) implementation and assessment of program results was reviewed and discussed with licensee representatives. The inspectors assessed surveillance results, data analysis details, land use census results, inter-laboratory comparison program details, and permitted program deviations. The report details were assessed for required sample types, sampling locations, and monitoring frequencies. QC activities for selected sample types listed in the report were reviewed and evaluated. Evaluated QC activities included assessment of inter-laboratory comparison results; evaluation of gross beta analyses capabilities; and review of pump flow calibrations and airflow determinations for selected particulate and charcoal airborne sampling systems.

On February 5, the inspectors toured and evaluated selected sampling stations for location and material condition of REMP equipment. The inspectors independently assessed eight air sampling station locations against ODCM specifications using NRC global positioning equipment. Collection of air particulate filters and charcoal cartridges, and flow rate determinations were observed at air sampling stations T41, T51, T52, T56, T57, T58, T71, and T72. In addition, the placement and location of eight off-site thermoluminescent dosimeters (TLDs) were evaluated. The proficiency and knowledge of workers collecting the samples and adequacy of collection techniques were assessed.

The REMP QC activities, program implementation and sample monitoring activities were reviewed against RG 1.21, TS, ODCM, ANSI, and applicable licensee and vendor procedures listed in the attachment to this report.

# b. Findings

No findings of significance were identified.

# .2 <u>Meteorological Monitoring Program</u>

# a. Inspection Scope

Licensee program activities to assure accuracy and availability of meteorological monitoring requirements were evaluated. Calibration procedures and records for the three most recent calibrations of the meteorological monitoring instruments for air temperature, wind speed, and wind direction were reviewed. During the week of February 4, 2002, the inspectors assessed material condition and operability during tours and observation of meteorological monitoring equipment at the primary and backup meteorological monitoring towers, and within the control rooms. Accuracy of meteorological data between the primary and backup meteorological towers was assessed. The inspector evaluated and reviewed instrument operability and assessed availability and accuracy of current meteorological data within the Control Room for both the primary and backup systems.

The meteorological program implementation and activities were reviewed against 10 CFR Part 20, TS, UFSAR § 2, ODCM, ANSI -3.11-2000, Determining Meteorological Information, and applicable procedures documented in the attachment to this report.

# b. Findings

No findings of significance were identified.

# .3 <u>Unrestricted Release of Materials from the Radiologically Controlled Area (RCA)</u>

#### a. Inspection Scope

Radiation protection program activities associated with the unconditional release of materials from the RCA were reviewed and evaluated. During the week of February 4, 2002, the inspectors directly observed surveys of potentially contaminated materials

released from the RCA for unrestricted use. To evaluate the appropriateness and accuracy of release survey instrumentation, radionuclides identified within recent waste stream analyses were compared against current calibration source radionuclide types and results. Licensee data to evaluate survey requirements for hard-to-detect radionuclides were reviewed and discussed.

The licensee practices and implementation of their monitoring activities were evaluated against 10 CFR Part 20, TS, UFSAR, and applicable procedures documented in the attachment to this report.

# b. Findings

No findings of significance were identified.

# .4 Problem Identification and Resolution

#### a. Inspection Scope

Licensee Condition Reports associated with REMP operations, and with program activities associated with unrestricted release of materials from the RCA were reviewed and evaluated. Specific CRs reviewed and evaluated in detail are identified in the attachment to this report. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve the identified issues.

# b. Findings

No findings of significance were identified.

# 2OS3 Radiation Monitoring Instrumentation

# .1 Area Radiation Monitoring and Post-Accident Monitoring Systems

# a. Inspection Scope

The operability, availability, and reliability of selected direct radiation detectors and continuous air monitors used for routine and accident monitoring activities were reviewed and evaluated. Inspection activities included record reviews and direct observation of equipment installation and operation. The following direct radiation monitoring equipment was included in the inspection:

- Unit 3 (U3), Personnel Air Lock Monitor, RI-3-1401B
- Unit 4 (U4), Sample Room Monitor, RI-4-1414B
- U3 & U4, Spent Fuel Pit (SFP) Monitors, RI-3-1421B, RI-4-1422B
- U3 & U4, New Fuel Room Monitors, RD-3-1423, RD-4-1424
- U3 & U4, Containment High Range Monitors (CHRMS), RAD-3-6311A/B, RAD-4-6311A/B
- U3 & U4, Reactor Coolant Letdown Line Activity Monitors, R-3-20, R-4-20

The attachment to this report lists records reviewed during the inspection and include current performance, functional, and calibration data; area radiation monitor System Structure Component (SSC) maintenance-rule results; and plant change modification data.

During the week of February 4, 2002, the inspectors directly observed equipment material condition, installed configurations (where accessible), and local and control room readouts; and reviewed established alarm set-points for U3 and U4 CHRMs, reactor letdown, and SFP buildings area radiation monitors. In addition, performance of response checks for monitors associated with the U3 Personnel Air Lock, U4 Sample Room, and the U3 and U4 SFP monitors were observed. The installed configuration for the U3 Reactor Coolant Letdown Monitor (R-3-20) was evaluated against specifications detailed in Calculation PTN-9FJF-01-027. During tours of the U3 and U4 Auxiliary and Radioactive Waste Buildings, the inspectors also evaluated the location and operation of continuous air monitors for evaluating potential airborne radioactivity.

In addition, the adequacy of current Post Accident Sampling System (PASS) program activities were reviewed and evaluated. The evaluation included review of current program guidance, completed and planned training, and equipment operability.

Program guidance, performance activities, and equipment material condition for the direct radiation detection instrumentation and continuous air sampling equipment were reviewed against details documented in Technical Specifications (TS), 10 CFR Parts 20 and 50, UFSAR Section (§)11, applicable Design Basis Documents (DBD), and associated procedures. Radiation detection and sampling equipment required for use in accident monitoring also were reviewed against details specified in NUREG 0737, Item II.F.1, Regulatory Guide (RG) 1.97, Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident, Rev. 3, and recent license amendment details. The specific procedural and guidance documents used to evaluate this program area are listed in the attachment to this report.

# b. Findings

No findings of significance were identified.

# .2 Personnel Survey Instrumentation

# a. <u>Inspection Scope</u>

Current program guidance, including calibration and operation procedures, and its implementation to maintain operability and accuracy of selected portable survey instruments was reviewed and evaluated. The inspectors reviewed current calibration data for six portable radiation monitoring instruments listed in the attachment of this report. During the week of February 4, 2002, operability of various portable survey instruments staged for use was assessed. Calibrations of an RO-2A and electronic alarming dosimeter (EAD) were observed. The inspectors discussed accuracy and operability determinations of the equipment used to perform surveys in high radiation areas and assessed licensee programs for use of EADs in high noise areas. In addition,

radiation protection technicians knowledge and proficiency regarding use of portable survey instrumentation were observed and evaluated. The evaluation assessed instrument selection and operability determinations conducted prior to performing selected radiological surveys and monitoring.

Operability and response capabilities of the whole body counting equipment for monitoring internally deposited radionuclides and personnel contamination monitors (PCM) utilized for monitoring personnel exiting the radiologically controlled area (RCA) were evaluated. Procedures and current calibration data were reviewed, and conduct of operations were reviewed for both whole body counter and PCM operations. Licensee data associated with potential radionuclide intakes by workers during calendar year (CY) 2001 were reviewed and assessed.

Licensee activities associated with portable radiation monitoring instrumentation were reviewed against TS, 10 CFR 20.1204 and 20.1501, and applicable licensee procedures listed in the attachment to this report.

# b. Findings

No findings of significance were identified.

.3 <u>Protective Equipment Respiratory Protection - Self Contained Breathing Apparatus</u> (SCBA)

#### Inspection Scope

The licensee's respiratory protection program guidance and its implementation for use of Self Contained Breathing Apparatus (SCBA) equipment were evaluated. The inspectors reviewed records associated with supplied air quality, and SCBA equipment maintenance. The number of available staged SCBA units, and the general material condition and air pressure were observed during tours of the Control Rooms, Radiologically Controlled Area (RCA) control point, and Operations Support Center (OSC). During the week of February 4, 2002, the inspectors reviewed and evaluated records associated with current medical qualification determinations, fit test results, and training status for all licensed operators. In addition, selected operators were interviewed to determine their level of knowledge of SCBA locations and proper use.

Licensee activities associated with maintenance and use of SCBA equipment were reviewed against TS, 10 CFR Part 20.1703, UFSAR §11, Emergency Plan details, ANSI-Z88.2-1992, and applicable procedures as listed in the attachment to this report.

#### b. Findings

No findings of significance were identified.

# .4 Problem Identification and Resolution

Licensee CRs associated with personnel monitoring instrumentation and respiratory protection activities were reviewed. Seven CRs reviewed and evaluated in detail during

inspection of this program area are identified in the attachment to this report. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve the identified issues. No findings of significance were identified.

# 3. SAFEGUARDS

**Cornerstone: Physical Protection (PP)** 

# 3PP2 Access Authorization

# a. Inspection Scope

During a routine tour of the facility on January 18, 2002, the inspectors entered the main truck gate (MTG) security control cubicle to evaluate the status of security equipment.

#### b. <u>Findings</u>

A non-cited violation of 10 CFR 50.70 (b) (4) was identified by the inspectors for failure to ensure that the arrival and presence of a NRC inspector was not announced or otherwise communicated (No Color).

On January 18, 2002, a NRC inspector was in the main truck gate (MTG) control cubicle, when the telephone was answered by the stationed security officer using the speaker phone. A security supervisor announced the inspector's presence to the security officer by stating that the NRC was walking around. The security officer quickly lifted the telephone receiver and answered that he is here and stated the inspector's name. The inspectors communicated to licensee management that this matter was a violation of NRC requirements.

The licensee initiated CR 02-0138. The licensee concluded that the security supervisor was calling to several locations to ensure that all officers were aware of a visiting NRC inspector conducting a security audit and not the announcing of the arrival of the inspector at the main truck gate. This method of communication (i.e., announcing the upcoming audit via telephone) was determined to be inappropriate by the licensee. The licensee determined the apparent cause was due to human error and a number of corrective actions were identified. Security management and the supervisor were counseled. All security shifts were briefed on the requirements of the CFR. Training was added to security officer requalification training and plant access training.

The inspectors did not identify any risk significance related to this finding. However, this issue has the potential for impacting the NRC's ability to perform its regulatory function. Unannounced inspections allow inspectors to observe licensee personnel performing licensed activities under normal circumstances. This issue was not evaluated by the Significance Determination Process but by the Enforcement Policy.

10 CFR 50.70 (b)(4) requires, that the licensee shall ensure that the arrival and presence of a NRC inspector, who has been properly authorized facility access, is not announced or otherwise communicated by its employees or contractors to other persons

at the facility unless specifically requested by the NRC. The failure to comply with the requirements of 10CFR 50.70 (b) (4) concerning announcement or communication of a NRC inspector's arrival and presence is a violation. But because this violation was of very low safety significance and was entered into the licensee's corrective action program CR 02-0138, it is being treated as a Non-Cited Violation (NCV) in accordance with Section VI.A.1 of the NRC Enforcement Policy. This finding is identified as NCV 50-250,251/01-07-01; Communication of NRC Inspector's Presence and Arrival by Security Supervisor.

#### 4 OTHER ACTIVITIES

# 4OA1 Performance Indicator Verification

# .1 <u>Initiating Events</u>

#### a. Inspection Scope

The inspectors reviewed the accuracy and completeness of the performance indicators for Unplanned Scrams per 7000 Critical Hours, Scrams with Loss of Normal Heat Removal, and Unplanned Power Changes per 7000 Critical Hours against the guidance of NEI 99-02, Rev1, "Regulatory Assessment Performance Indicator Guideline." The inspectors reviewed data for the second, third and fourth quarters of 2001. The inspectors also reviewed the status of a frequently asked question concerning a power change. The inspectors reviewed monthly operating reports, Licensee Event Reports, plant procedure 0-ADM-032, NRC Performance Indicators, and NRC inspection reports during this inspection.

# b. Findings

No findings of significance were identified.

# .2 Emergency Preparedness Cornerstone

The licensee records were reviewed to determine whether the submitted PI statistics (through the fourth quarter of 2001) were calculated in accordance with the guidance contained in Section 2.4 (Emergency Preparedness Cornerstone) of NEI 99-02, Revision 1," Regulatory Assessment Performance Indicator Guideline."

# .21 Emergency Response Organization (ERO) Drill/Exercise Performance

#### a. Inspection Scope

The inspector assessed the accuracy of the performance indicator (PI) for ERO drill and exercise performance (DEP) through review of selected scenarios and the associated classification and notification worksheets. In addition, the inspector reviewed and discussed the licensee's methodology for calculating the DEP PI. The 98.0% DEP value was compared to the 90.0% minimum Green threshold.

# b. <u>Findings</u>

No findings of significance were identified.

# .22 ERO Drill Participation

# a. Inspection Scope

The inspector assessed the accuracy of the PI for ERO drill participation through review of computer qualification print-outs of ERO qualified personnel against sign-in sheets for participation in selected drills. The 98% reported drill participation was compared to the 90.0% minimum Green threshold.

# b. <u>Findings</u>

No findings of significance were identified.

# .23 Alert and Notification System Reliability

#### a. Inspection Scope

The inspector assessed the accuracy of the PI for the alert and notification system reliability through review of the licensee's records of the siren tests. The 99.8% reported ANS reliability was compared to the 94.0% minimum Green threshold.

#### b. Findings

No findings of significance were identified.

# 4OA5 Other

(Closed) NRC Temporary Inspection Procedure TI 2515/145, Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles (NRC Bulletin 2001-01)

#### a. Inspection Scope

The inspector reviewed the licensee's inspection plan and the associated procedures that were used to perform the general visual inspection of the Unit 4 reactor vessel head and the detailed 360-degrees visual examination of all the vertical head penetrations (VHP). The inspector observed portions of the remotely monitored VHP examinations to verify the inspections were performed in accordance with the inspection procedures and to assess the quality of the visual monitoring equipment used during the inspection. The inspectors reviewed the qualifications of the examination personnel to verify adequate training for performing the examination.

# b. <u>Findings</u>

1) Verification that visual examination was performed by qualified and knowledgeable personnel.

Level II VT-2 qualification documentation for the personnel performing the inspection were verified. The inspectors interviewed some of the personnel and noted that they were part of the crew that had performed a similar examination of the Turkey Point Unit 3 reactor head penetrations during last fall's outage, and had also performed similar examinations at other licensee sites. The inspector reviewed the inspection standards, acceptance criteria as described in the inspection procedures, the calibration requirements of the camera and lighting, and the resolution and sensitivity requirements for the inspection equipment, and found that the inspection personnel were very knowledgeable with the requirements in all of these areas.

2) Verification that visual examination was performed in accordance with approved and adequate procedures.

The inspectors reviewed the applicable inspection procedures and verified they had been reviewed and approved through the licensee's vendor procedure reviews process. Procedure 02-6013075-00, Reactor Head Nozzle Penetration Remote Visual Inspection Plan For Turkey Point Unit 4; and procedure 54-ISI-367-03, Visual Examination For Leakage Of Reactor Head Penetrations, provided detailed requirements to perform a complete 360-degree inspection of each nozzle. During the examinations the inspectors verified that the examiners used the procedures and noted that the approved acceptance criteria and/or critical parameters for VHP leakage were applied in accordance with the procedures.

3) Verification that the licensee was able to identify, disposition, and resolve deficiencies.

The inspectors noted that the approved Unit 4 inspection plan specifically described nozzle indexing and provided adequate guidance to ensure that visual examinations included 100 percent circumferential coverage of each VHP. Additionally, the examination procedure provided a detailed map of all the penetrations. Each penetration was numbered and divided into four quadrants. The location of each penetration was identified through reference marks on the head and flange bolt numbers. Although, the examination procedure provided specific follow-up actions for indications or deficiencies, no indications of leakage were identified during the visual examinations.

4) Verification that the licensee was able to identify the PWSCC phenomenon described in the bulletin.

The inspector noted that all insulation was removed from the reactor head to perform the visual examination. Based on verification from the inspector that: there was good resolution of the remote video examination equipment; the 100 percent circumferential coverage of each VHP was an inspection/procedure requirement; the training and qualifications of the examination personnel met the requirements for the inspection; licensee used approved procedures; and review of the final completed procedures, the inspectors concluded that the licensee conducted an effective visual inspection for potential leakage resulting from PWSCC of VHP nozzles.

5) Evaluate condition of the reactor vessel head (debris, insulation, dirt, boron from other sources, physical layout, viewing obstructions).

Although the licensee removed the head insulation, providing easier access for visual examination, there was a minor amount of debris around some of the penetrations. However, there was no significant amounts of debris, or any viewing obstructions that prevented the examination from being performed and assessed per the acceptance criteria in the procedure. There were no physical impediments to preclude viewing certain nozzles or portions of nozzles. The licensee was able to adequately view each of the 66 penetrations during the visual examinations per procedure requirements.

6) Evaluate ability for small boron deposits, as described in the bulletin, to be identified and characterized.

The inspector noted that the reactor head was clean and free of any significant deposits. The licensee used a crawler with video probe to perform the 360-degree visual examination of each penetration. There was one debris sample on nozzle 61 that was not conclusively identifiable by observation and it was subsequently tested at the radio chemistry laboratory. The sample was insoluble in water and no boron was detected. No examples of boron were identified during the inspection.

7) Determine extent of material deficiencies (associated with the concerns identified in the bulletin) which were identified that required repair.

No examples of VHP leakage or material deficiencies were identified during the visual examination.

8) Determine any significant items that could impede effective examinations and/or ALARA issues encountered.

No ALARA issues or examples of significant items that could impede the visual examination process were noted during observation of the visual examinations.

# 4OA6 Meetings

# .1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on April 3, 2002. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

#### .2 Annual Assessment Meeting Summary

On March 19, 2002, the NRC Branch Chief and Senior Resident Inspector assigned to Turkey Point, met with Florida Power & Light to discuss the NRC's Reactor Oversight Process (ROP) and the Turkey Point annual assessment of safety performance for the

period of April 1, 2001 - December 31, 2001. The major topics addressed were: the NRC's assessment program, the results of the Turkey Point assessment, and the NRC's Agency Action Matrix. Attendees included Turkey Point site management, members of site staff, and corporate office.

This meeting was open to the public. Information used for the discussions of the ROP is available from the NRC's document system (ADAMS) as accession number ML020600179. ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

# PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

- E. Avella, Maintenance Manager
- G. Hollinger, Protection Services Manager
- T. Jones, Plant General Manager
- M. Jurmain, Work Control Manager
- J. Kirkpatrick, Training Manager
- M. Lacal, Operations Manager
- D. Lowens, Quality Assurance Manager
- J. McElwain, Site Vice-President
- W. Parker, Licensing Manager
- S. Wilsa, Health Physics Supervisor
- A. Zielonka, Acting Site Engineering Manager

Other licensee employees contacted included office, operations, engineering, maintenance, chemistry/radiation, and corporate personnel.

# NRC

- L. Reyes, Regional Administrator
- R. Musser, Acting Branch Chief

#### ITEMS OPENED AND CLOSED

#### Opened

50-250, 251/01-07-01

NCV

Communication of NRC Inspector's Presence and Arrival by Security Supervisor (Section 3 PP2)

# Closed

TI 2515/145-Unit 4 Temporary Inspection Procedure TI

Temporary Inspection Procedure TI 2515/145, Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles (NRC Bulletin 2001-01) (Section

4OA5)

50-250, 251/01-07-01 NCV Communication of NRC Inspector's

Presence and Arrival by Security Supervisor

(Section 3 PP2)

#### LIST OF DOCUMENTS REVIEWED

# **1R11.2 Licensed Operator Requalification**

Florida Power & Light Company, Turkey Point Units 3 and 4 Nuclear Training Department:

Administrative Guide 005, Simulator Training Guideline

Administrative Guideline AG-017, Implementation Phase - SAT

Administrative Guideline AG-018, Evaluation Phase - SAT

NTI-005-PTN-JA-001, Self Assessment and Corrective Actions

Annual Written Examination for Current Exam Cycle.

Annual Operating Examination for Current Exam Cycle.

# **1R12.1 Maintenance Rule Implementation**

Procedure 0-ADM-728, Revision 2/15/01, "Maintenance Rule Implementation"

PTN-ENG-01-063, "PTN Maintenance Rule Periodic Assessment," dated March 13, 2001

Condition Reports (CRs) associated with the above assessment including: a sample of completed corrective actions, root cause determinations, (a)(1) determinations, and goal setting and status

CR 00-2346	CR 00-2353	CR 00-1388
CR 98-1804	CR 99-1520	CR 00-1387
CR 00-1415	CR 00-2130	CR 00-0099
CR 00-2373	CR 00-2411	CR 98-1823

Maintenance Rule Quarterly Reports

Quarter 4, 2000 Quarter 2, 2001

18 Month SSC Periodic Assessments - Units 3 (cycle 17) and 4 (cycle 18)

Instrument Air System
Component Cooling Water System
Safety Injection Accumulator System
Emergency Diesel Generator System
Safety Injection System

# Calculation PTN-BFJR-97-004, Revision 2

# 2OS3 Personnel Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

# Procedures, Instructions, Lesson Plans, and Manuals

- O-HPT-018.1, Calibration and Operation of Models 3090-HR and 3090-3 Area Monitors, 11/08/01
- 4-NCZP-051.1, Obtaining a Containment Air Sample During Emergency Conditions, 04/11/01
- 4-NCZP-094.1, Obtaining a Unit 4 PASS Sample During Emergency Conditions, 04/10/01
- 4-NCZP-094.2, Obtaining a Unit 4 PASS Sample During Non-Emergency Conditions, 04/10/01
- O-HPT-020, Calibration and Operation of the MGPI Digital Alarming Dosimeter Models DMC-100 and DMC-2000, 11/30/01
- O-HPT-012.9, Calibration and Operation of the Xetex Telescan Model 330A Survey Instrument, 04/15/95
- O-HPT-018.2, Calibration and Operation of the AMP-100 High Range Area/Underwater Radiation Monitor, 03/21/01
- O-HPT-011.2, Certification and Operation of the Shepard Model 89 Shielded Range calibrator, 09/24/01
- O-HPT-012.2, Calibration and Operation of the Xetex Digital Area Monitors, 10/17/01
- O-HPT-012.7, Calibration and Operation of the Eberline Analog Smart Model ASP-1, 05/02/01
- O-HPT-012.1, Calibration and Operation of RO-20, RO-2, and RO-2A, 11/29/00
- O-HPT-013, Portable Survey Instruments, 08/27/01
- O-HPT-013.1, Calibration and Operation of Radeco Air Samplers, 09/05/01
- O-HPT-013.4, Calibration and Operation of Low Volume Air Samplers, 09/04/01
- O-HPT-014.6, Calibration and Operation of the Health Physics Whole Body Counting Equipment, 09/24/01
- O-HPT-031, Personnel Monitoring of Internal Dose, 03/07/01
- 0-HPT-016.1, Calibration and Operation of the Eberline Model PCM-1B Personnel Contamination Monitor, 10/10/01
- O-HPS-062.2, Use of the Self-Contained Breathing Apparatus,08/06/01
- O-HPS-063.2, Maintenance and Accountability of Respiratory Protection Equipment, 03/22/01
- 0-EPIP-20101, Duties of Emergency Coordinator, 04/12/01
- Respiratory Protection Training Lesson Plan 3302006

# Instrument/Equipment Performance and Calibration Data

- 3-PMI-067.7, Process Radiation Monitoring System Channel R-3-20 Calibration, 06/01/01
- 4-PMI-067.7, Process Radiation Monitoring System Channel R-4-20 Calibration, 11/13/01
- O-PMI-066.2, Area Radiation Monitoring System Calibration, 01/23/01

- Containment High Radiation Monitoring System Channels RAD-3-6311 A/B Calibration Data Sheet Records, 10/07/01
- 3-PMI-066.3, Containment High Radiation Monitoring System Channels 6311 A/B Calibration, 12/11/00
- 4-PMI-066.3, Containment High Radiation Monitoring System Channels 6311 A/B Calibration, 12/11/00
- RD-3-1423 Calibration Data Sheet Records, 10/03/00
- RAD-3-6311 A/B Calibration Data Sheet Records, 10/07/01
- RAD-4-6311 A/B Calibration Data Sheet Records, 10/03/00
- SSC Performance Indicator Data, Area Radiation Monitors, 1<sup>st</sup> through 4<sup>th</sup> Quarter 2001
- RO-2A Calibration Data Sheet Record, 01/29/02
- Xetex 501A Calibration Data Sheet Record, 01/25/02
- Teletector Calibration Data Sheet Record, 01/25/02
- ASP-1/HP-270 Calibration Data Sheet Record, 10/02/01
- AMP 100 Calibration Data Sheet Record, 09/19/01
- RO-7 Calibration Data Sheet Record, 09/27/01

#### **Audits and Assessments**

Respiratory Protection Program Self Assessment, 06/22/00

# Design Basis Documents, Drawings, Calculations

 Calculation PTN-9FJF-01-027, Determination of Letdown Radiation Monitor (R20) Dose Rate Limit Corresponding to 300 @Ci/g of DEQ I-131, 03/29/01

# Condition Reports (CR)

- CR 01-0211, Incoming Personnel Contamination, 07/26/01
- CR 01-1370, Storage of Respirator Face Pieces, 08/12/01
- CR 01-1501, Shepard Model 89 Calibrator Conflicting Requirements, 09/02/01
- CR 01-1567, Portable Survey Instruments Requirements, 09/11/01
- CR 01-1989, Personnel Particle Contamination, 11/06/01
- CR 01-2447, Personnel Particle Contamination, 01/15/02

#### Manuals and Plans

Turkey Point Plant, Radiological Emergency Plan, § 2, Rev. 38, 04/20/01

# Updated FSAR Sections, Safety Evaluations Reports, and License Amendments

- Turkey Point Units 3 and 4, UFSAR § 11, Rev 16, 10/1999
- Safety Evaluation Related to Topical Report WCAP-14986, Revision 1, Westinghouse Owners Group Post Accident Sampling System Requirements, June 14, 2000
- Turkey Point Units 3 and 4 Issuance of Amendments Regarding Elimination of Requirements for Post-Accident Sampling Systems, January 31, 2001.

#### Miscellaneous Documents

- NVLAP Certificate of Accreditation for Ionizing Radiation Dosimetry
- Air Quality Certificates for Installed Plant Breathing Air System, 10/03/00, 05/31/01, 09/06/01,12/04/01

# **2PS1** Radioactive Gaseous and Liquid Effluent Monitoring (71122.01)

#### Procedures, Instructions, Lesson Plans, and Manuals

- 0-NCAP-206, Determination of Lower Limit of Detection for Radiochemistry Instrumentation, 11/10/96
- 0-ADM-652, Chemistry Department QA/QC Program, 05/16/97,
- 0-NCOP-004, Preparation of Gas Release Permits, 01/03/01,
- 0-NCOP-006, Preparation of Radioactive Effluent Release Reports, 10/14/98
- 0-NCZP-051.3, Obtaining Plant Effluent Samples Via the SPING Monitors During Non-Accident Conditions, 04/20/00

# Instrument/Equipment Performance and Calibration Data

- 0-PMI-067.5, Process Radiation Monitoring System Channel R-14 Calibration Data Sheet, 05/02/01
- 0-PMI-067.5, Process Radiation Monitoring System Channel R-18 Calibration Data Sheet, 06/04/01
- 0-PMI-067.9, Process Radiation Monitoring System Calibration Data Sheet for the Plant Vent SPING (RAD-6304), 12/01/00
- 0-CMI-067.2, Functional Test Data Sheet for the U3 Steam Jet Air Ejector Exhaust SPING (RAD-3-6417), 12/20/00
- 0-PMI-067.9, Process Radiation Monitoring System Calibration Data Sheet for the U3 Steam Jet Air Ejector Exhaust SPING, 03/02/01
- SSC Performance Indicator Data, Process Area Radiation Monitors, 1<sup>St</sup> through 3<sup>th</sup> Quarter 2001

# Radioactive Release Permits Reviewed

- Liquid Release Permit (LRP) Number (No.) 11, A Monitor Tank (MT) Liquid Release, conducted 01/11/02.
- LRP No.12, B Monitor Tank (MT) Liquid Release, conducted 01/12/02.
- Gas Release Permit (GRP) No. 01-36, 'B' Gas Decay Tank (GDT) Release, conducted 10/27/01.
- GRP 01-37, GRP No.01-37, 'D' Gas Decay Tank (GDT) Release, conducted 10/28/01.
- GRP No.01-36, U3 Containment Purge, conducted 09/27/01.

#### Design Basis Documents, Drawings, Calculations

- 5610-067-DB-001, Turkey Point Units 3 and 4, Process Radiation Monitoring Design Basis Document, Rev. 6
- Drawing 5177-112-J102, Installation Detail, Radiation Monitor SFP Vent Stack, Rev. 2

# Condition Reports (CR)

- CR 01-1040, Improper Alignment of U4 Steam Generator Blowdown Valves During Performance of Surveillance, 4-OSP-067.1, 05/16/01
- CR 01-1659, U3 SJAE SPING Low Flow Conditions, 08/31/01
- CR 01-1742, Failure to Schedule Routine TS Surveillances for Rad 3/4-6417, 09/19/01
- CR 01-1942, Improper Flow Path for Liquid Release No. 01-134, 10/08/01
- CR 01-2128, Unplanned Release of 'C' WGDT via Reactor Coolant Drain Tank, 10/21/01

# Manuals and Plans

 Offsite Dose Calculation Manual for Gaseous and Liquid Effluents From the Turkey Point Plant Units 3 and 4., Revision 9, 3/26/01

# **Annual Reports**

- Turkey Point Units 3 and 4, 2000 Annual Radioactive Effluent Release Report, March 27, 2001
- Turkey Point Units 3 and 4, 2000 Annual Radiological Environmental Operating Report, May 08, 2001

# Updated FSAR Sections, Safety Evaluations Reports, and LICENSE Amendments

- Turkey Point Units 3 and 4, UFSAR § 11, Rev 16, 10/1999
- Turkey Point Units 3 and 4, Safety Evaluation for Containment Airborne Radiation Monitors
   (R11/R12) ESF Set-Points, May 8, 1995

# 2PS3 Radiological Environmental Monitoring Program (71122.03)

# Procedures, Instructions, Lesson Plans, and Manuals

- 0-HPT-016.11, Calibration and Operation of the SAM-9(A), 09/26/01
- 0-HPT-012.5, Calibration and Operation of Eberline Radiation Monitor, Model RM-14S, 04/08/99
- 0-HPS-021-3, Identification, Survey and Release of Material for Unrestricted Use, 6/22/99
- MET-DIR-001, Land Utilization Department -Lab Administrative Directive Manual, Meteorological System Walkdowns and Inspections, Rev. 0.1, 02/01/98,
- MET-DIR-002. Land Utilization Department -Lab Administrative Directive Manual Meteorological Outage Notification and System Calibration, Rev. 0, 07/11/01,

# Instrument/Equipment Performance and Calibration Data

- Semi Annual Calibration Packages for Meteorological Towers, 12/8-20/00; 06/13-14/01; 12/13-14/2001
- SAM-9 Calibration Data Sheet, Serial Number (SN) 257, 11/01/01; SN 235, 07/31/01; SN 336, 08/06/01; SN 274, 09/17/01

# **Audits and Assessments**

- Radiological Effluent Monitoring Program and Site Non-Radiological Environmental Protection Plans Functional Area Audit, QAS-ENV-01-1, May 31-July 26,2001.
- Emergency Preparedness Audit, QA-PTN-01-004, Pages 11-12
- PTN Nuclear Assurance Quality Report, Radiation Monitoring Instrumentation, QRNO-01-0093, 8/27/01
- PTN Nuclear Assurance Quality Report, Effluent Release Activities ODCM, QRNO-01-0095, 8/29/01
- Radiation Protection Functional Area Audit, QAO-PTN-01-0005, 4/ 2/2001-5/16/2001
- Chemistry and Effluents Functional Area Audit, QAO-PTN-01-02, 2/5/2001-4/9/2001, Pages 11-12
- Department of Energy, QAP-55 Data Report (State of Florida and Duke Engineering Environmental Labs quality assessment data)

# Condition Reports (CR)

- CR 02-0109, Loss of Data Due to Equipment Failure, 01/23/02
- CR 01-2253, Co-60 Activity Results Statistically Positive for 2d Quarter Sewage Treatment Plant Sludge Sample. Third Quarter Sample Results below MDC, 11/08/01.

# Manuals and Plans

• Offsite Dose Calculation Manual for Gaseous and Liquid Effluents From the Turkey Point Plant Units 3 and 4., Revision 9, 3/26/01

#### **Annual Reports**

 Turkey Point Units 3 and 4, 2000 Annual Radiological Environmental Operating Report, May 08, 2001

# <u>Updated FSAR Sections, Safety Evaluations Reports, and License Amendments</u>

- Turkey Point Units 3 and 4, UFSAR, § 2, Rev 16, 10/1999
- Turkey Point Units 3 and 4, UFSAR § 11, Rev 16, 10/1999

# Miscellaneous Documents

- Inter-office correspondence, Effects of dust, dirt loading on REMP air filters, 7/19/2001
- Inter-office correspondence, Turkey Point Nuclear Plant 2000 Annual Average Dispersion Modeling for Continuous Releases Report", 1/19/01
- White Paper, Evaluation of the Effect of Difficult to Detect Radionuclides on Free Release

# of Radioactive Material

- Dry Active Waste 10 CFR 61 Analysis, 03/23/00
  Dry Active Waste 10 CFR 61 Analysis, dated 10/27/00