



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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

April 28, 2006

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 - INTEGRATED INSPECTION REPORT
05000250/2006002 AND 05000251/2006002

Dear Mr. Stall:

On March 31, 2006, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Turkey Point Units 3 and 4. The enclosed integrated inspection report documents the inspection findings which were discussed on April 20, 2006, with Mr. T. Jones 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, there were four findings of very low safety significance (Green). Three of these findings were determined to involve violations of NRC requirements. However, because of the very low safety significance of the issues, and because each was entered into your corrective action program, the NRC is treating the issues as Non-Cited violations (NCV) consistent with Section VI.A of the NRC Enforcement Policy. If you wish to contest any NCVs in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-001; 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 Turkey Point.

In accordance with 10 CFR 2.390 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 <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Joel T. Munday, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket Nos. 50-250, 50-251

License Nos. DPR-31, DPR-41

Enclosure: Inspection Report 05000250/2006002 and 05000251/2006002
w/Attachment: Supplemental Information

cc (See page 3)

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Joel T. Munday, Chief
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Report to J. A., Stall from Joel T. Munday dated April 26.

SUBJECT: TURKEY POINT NUCLEAR PLANT - INTEGRATED INSPECTION REPORT
05000250/2006002 AND 05000251/2006002

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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: 05000250/2006002, 05000251/2006002

Licensee: Florida Power & Light Company (FP&L)

Facility: Turkey Point Nuclear Plant, Units 3 & 4

Location: 9760 S. W. 344th Street
Florida City, FL 33035

Dates: January 1 - March 31, 2006

Inspectors: S. Stewart, Senior Resident Inspector
T. Kolb, Resident Inspector
J. Kreh, Emergency Preparedness Inspector (1EP2-5 and 4OA1)
G. Kuzo, Senior Health Physicist (Sections 2OS1 and 4OA1)
R. Carrion, Project Engineer (Section 2PS3)
J. Díaz-Vélez, Health Physicist (Section 2OS3)
H. Gepford, Health Physicist (Sections 2PS1 and 4OA1)
R. Baldwin, Senior Operations Engineer (Section 1R11)
S. Vias, Senior Reactor Inspector (Section 1R08)
E. Michel, Reactor Inspector (Section 1R08)

Approved by: Joel T. Munday, Chief
Reactor Projects Branch 3
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000250/2006-002, 05000251/2006-002; 01/01/2006 - 03/31/2006; Turkey Point Nuclear Power Plant, Units 3 and 4; Licensed Operator Requalification Program, Refueling and Other Outage Activities, Surveillance Testing, Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

The report covered a three month period of inspection by resident inspectors and region based health physicists and engineers. The significance of most findings is identified by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process", Revision 3, dated July 2000.

A. Inspector Identified & Self-Revealing Findings

Cornerstone: Initiating Events Cornerstone

Green. A self-revealing finding was identified when a maintenance technician operated an incorrect valve while conducting a main steam line pressure transmitter surveillance. The valve that was mistakenly closed was associated with a pressure instrument that was in service. The error caused an atmospheric steam dump valve to automatically fully open. The cause of the finding was related to the cross-cutting element of human performance, specifically an individual personnel error.

This finding is greater than minor because a human error adversely affected the Initiating Events cornerstone objective of limiting the likelihood of events that upset plant stability during power operations. Because mitigating systems were not affected, the finding screened to be of very low safety significance. (Section 1R22)

Cornerstone: Mitigating Systems

Green. A self-revealing non-cited violation of Technical Specification 6.8.1, Procedures, was identified during a loss of offsite power event on March 8, 2006, when both Unit 3 emergency diesel generators were made inoperable by installation of ground test devices on the Unit 3 startup transformer without adequate configuration control. The finding occurred when the licensee failed to implement the proper procedure for installation of the grounding devices and a control system jumper was left out of the circuitry. The cause of the finding was related to the cross-cutting element of human performance, specifically organization, in that the transformer work was not planned or conducted using the appropriate procedure.

The finding was more than minor because the operability of Mitigating System equipment was affected when the ground test devices were installed without the

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necessary jumpers. Because the failure did not represent an actual loss of safety function and was corrected by operator actions when the 3A emergency diesel generator was providing power to the 3A 4160 volt safety bus, the finding was determined to be of very low safety significance. (Section 1R20)

Cornerstone: Barrier Integrity

Green. The inspectors identified a non-cited violation of Technical Specification 6.8.1.a, which requires that written procedures be implemented covering the activities recommended by Regulatory Guide 1.33, including procedures for procedure adherence. The violation was identified when a step in emergency operating procedure (EOP) E-3, Steam Generator Tube Rupture, was determined to not be usable as specified in the licensee's validation and verification plan. The licensee entered the deficiency into their corrective actions program and initiated a procedure change.

The finding was more than minor because it affected the ability to assure that a physical barrier (steam generator tubes) needed to protect the public from radionuclide releases was protected by prompt identification and isolation of a rupture. The Barrier Integrity Cornerstone was affected and the finding screened to be of very low safety significance because no steam generator ruptures had occurred at Turkey Point and no actual loss of safety function had occurred. (Section 1R11)

Cornerstone: Public Radiation Safety

Green. The inspectors identified a non-cited violation of Technical Specification 6.8.1.e for failure to implement quality control activities consistent with guidance in Regulatory Guide 1.21 to maintain representative sampling and monitoring of particulates in the main Plant Vent effluents. Specifically, procedural changes made in February 2005 allowed for operation of the main Plant Vent system particulate iodine noble gas (SPING) sampler outside of established isokinetic (representative) sampling design bases. Subsequently, the inspectors identified several occurrences in September 2005 where the main Plant Vent SPING flowrates resulted in nonrepresentative sampling conditions for effluent particulates. This finding was entered into the licensee's corrective action program. A contributing cause of the finding is related to the cross-cutting element of problem identification and resolution, specifically corrective actions, in that the licensee's corrective actions for a previous finding failed to evaluate the main Plant Vent and SPING RAD-6304 sampler flowrates for maintaining representative sampling throughout the entire procedural limit ranges specified in procedures.

This finding is greater than minor because it is associated with the Public Radiation Safety Cornerstone and affects the cornerstone objective of assuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. The

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failure to maintain isokinetic sampling conditions or otherwise account for nonrepresentative sampling conditions could result in inaccurate (impaired) measurement and reporting of airborne particulate radionuclides in samples and the resultant dose estimates. The finding was evaluated using the Public Radiation Safety Significance Determination Process (SDP) and was determined to be of very low safety significance (green) because there was no failure to assess dose to the public from airborne particulates released from the main plant vent and doses did not exceed Appendix I to 10 CFR Part 50 design criteria. (Section 2PS1).

B. Licensee Identified Violations

A violation of very low safety significance, which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. The violation and corrective actions are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status:

Unit 3 began the period at or near full power. On March 5, power was reduced to 49 percent for main steam safety valve testing. On March 6, the unit was taken off line and a cooldown commenced for a refueling outage. At the end of the period, the plant was refueled and remained in Mode 5.

Unit 4 began the period at full rated thermal power and operated at or near full power for the inspection period except for the following: Unit 4 was shutdown on February 20 to replace a failed nuclear instrument. The instrument was replaced and the unit returned to power operation on February 21.

1. REACTOR SAFETY

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

1R01 Adverse Weather Protection

a. Inspection Scope

During the weeks of January 2 and February 14, the inspectors verified the status of licensee actions in accordance with licensee procedure 0-ONOP-103.2, Cold Weather Preparations. This was the annual review of cold weather verification and included physical walkdowns of the following plant areas and discussions with responsible licensee personnel regarding systems, structures, and components (SSCs) vulnerable to cold weather. The inspectors monitored the periodic testing of the diesel driven instrument air compressors and the diesel driven service water pump during lower temperature weather. The inspectors reviewed Technical Specification 3.5.4, Refueling Water Storage Tank, and CR 2002-2440 regarding previous cold weather preparations. The UFSAR was also checked and no section dealing with cold weather was found.

- Unit 3 emergency diesel generator rooms
- Unit 3 charging pump rooms
- Unit 4 charging pump rooms
- Unit 3 high head safety injection room

b. Findings

No findings of significance were identified.

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1R04 Equipment Alignment

1. Partial Equipment Walkdowns

a. Inspection Scope

The inspectors conducted three partial alignment verifications of the safety-related systems listed below. These inspections included reviews using plant lineup procedures, operating procedures, and piping and instrumentation drawings, which were compared with observed equipment configurations to verify that the critical portions of the operable systems were correctly aligned.

- Unit 4, B and C auxiliary feedwater pumps and flow trains 1 and 2, using licensee procedure 4-OP-075, Auxiliary Feedwater System, after C auxiliary feedwater pump had been aligned to Train 1 due to maintenance on auxiliary feedwater pump A.
- Unit 3, B high head safety injection and Unit 4, A and B high head safety injection system using 3-OP-062, Safety Injection, due to the replacement of the 3A high head safety injection pump motor and coupling.
- Unit 3, 3A 4160 volt bus and associated safety equipment using 3-OP-005, 4160 Volt Buses A, B and D, during maintenance associated with the 3B 4160 volt bus.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors toured the following nine plant areas during this inspection period to evaluate conditions related to control of transient combustibles and ignition sources, the material condition and operational status of fire protection systems including fire barriers used to prevent fire damage or fire propagation. The inspectors reviewed these activities against provisions in the licensee's Procedure 0-ADM-016, Fire Protection Plan, and 10 CFR Part 50, Appendix R. The licensee's fire impairment lists, updated on a daily basis were routinely reviewed. In addition, the inspectors reviewed the condition report database to verify that fire protection problems were being identified and appropriately resolved. The following areas were inspected:

- Unit 4 emergency diesel generator areas
- Unit 4 main feedwater platform

- Unit 3 west and south electrical penetration rooms
- Unit 3 high head safety injection pump room
- Unit 3 and 4 cable spreading room
- Unit 3 and 4 common auxiliary building area
- Unit 3 containment
- Unit 3 A and B residual heat removal rooms
- Unit 4 A and B containment spray pump rooms

b. Findings

No findings of significance were identified

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors observed activities in accordance with FPL procedures 3-OSP-030.4, Component Cooling Water Heat Exchanger Performance Monitoring, and procedure 0-PMM-030.1, Component Cooling Water Heat Exchanger Cleaning, on January 23, 2006. The inspectors periodically checked the licensee monitoring of intake temperature versus system temperature limits to assure technical specification requirements were met and assessed the operational readiness of the cooling systems should they be needed for accident mitigation. The inspectors verified that the licensee conducted appropriate preventive maintenance to assure system readiness.

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection (ISI) Activities

.1 Piping and Pressure Boundary Systems ISI

a. Inspection Scope

From March 13-17, 2006, the inspectors reviewed the implementation of the licensee's ISI program for monitoring degradation of the reactor coolant system boundary and the risk significant piping system boundaries for Unit 3. The inspectors selected a sample of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI required examinations and Code components in order of risk priority as identified in Section 71111.08-03 of inspection procedure 71111.08, "Inservice Inspection Activities," based upon the ISI activities available for review

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during the onsite inspection period.

The inspectors conducted an on-site review of nondestructive examination (NDE) activities to evaluate compliance with Technical Specifications (TS), ASME Section XI, and ASME Section V requirements, 1998 Edition through 2000 Addenda, and to verify that indications and defects (if present) were appropriately evaluated and dispositioned in accordance with the requirements of ASME Section XI, IWB-3000 or IWC-3000 acceptance standards. Specifically, the inspectors observed the following examinations and/or examination records:

Ultrasonic Testing (UT):

- 8"-SI-2309-20, C-F-1, C5.11 (pipe-elbow)
- 8"-SI-2309-21, C-F-1, C5.11 (elbow-pipe)
- 8"-SI-2309-22, C-F-1, C5.11 (pipe-tee)
- 8"-SI-2309-23, C-F-1, C5.11 (tee-pipe)
- 8"-SI-2309-24, C-F-1, C5.11 (pipe-valve)

Magnetic Particle Testing (MT):

- 6"-FWA-2301-2, C-F-2, C5.51 (reducer-valve)

Liquid Penetrant Testing (PT):

- 8"-SI-2309-20, C-F-1, C5.11 (pipe-elbow)
- 8"-SI-2309-21, C-F-1, C5.11 (elbow-pipe)
- 8"-SI-2309-22, C-F-1, C5.11 (pipe-tee)
- 8"-SI-2309-23, C-F-1, C5.11 (tee-pipe)
- 8"-SI-2309-24, C-F-1, C5.11 (pipe-valve)

Radiographic Testing (RT)

- Weld FW-1, Aux Feedwater, 4 in. c/s (pipe-elbow)
- Weld FW-2, Aux Feedwater, 4 in. c/s (elbow-pipe)

Qualification and certification records for examiners, inspection equipment, and consumables along with the applicable NDE procedures for the above ISI examination activities were reviewed and compared to requirements stated in ASME Section V and Section XI.

The inspectors performed a review of piping system ISI related problems that were identified by the licensee and entered into the corrective action program. The inspectors reviewed corrective action documents to confirm that the licensee had appropriately described the scope of the problems. Additionally, the inspectors' review included confirmation that the licensee had an appropriate threshold for identifying issues and had implemented effective corrective actions. The inspectors evaluated the threshold for identifying issues through interviews with licensee staff and review of

Enclosure

licensee actions to incorporate lessons learned from industry issues related to the ISI program. The inspectors performed these reviews to ensure compliance with 10CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements. The corrective action documents reviewed by the inspectors are listed in the attachment to this report.

The inspectors reviewed the Engineering Evaluation for steam generator continued operation to verify that activities are being conducted according to Technical Specification (TS) and the ASME Code Section XI requirements. The inspectors reviewed PTN-ENG-SESJ-05-001, Rev, 0, Degradation Assessment for Turkey Point Units 3 and 4 Steam Generators, Update for the Turkey Point Unit 4 End-of-Cycle 21 Refueling Outage. The inspectors reviewed the evaluation of the current DA and OA for the Turkey Point Units 3 & 4 steam generators to determine that the inspection interval, which did not include eddy current examinations this outage, was valid. The inspectors also observed and reviewed the secondary side integrity review and inspections, which included sludge lancing, bundle flushing and foreign object search and retrieval.

b. Findings

No findings of significance were identified.

.2 Boric Acid Corrosion Control (BACC) ISI

a. Inspection Scope

The inspectors reviewed the licensee's BACC activities to ensure implementation with commitments made in response to NRC Generic Letter 88-05 "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary" and Bulletin 2002-01 "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity."

The inspectors conducted an on-site record review as well as an independent walk-down of parts of the reactor building that are not normally accessible during at-power operations to evaluate compliance with licensee BACC program requirements. In particular, the inspectors assessed whether the visual examinations focused on locations where boric acid leaks can cause degradation of safety significant components and that degraded or non-conforming conditions were properly identified in the licensee's corrective action system.

The inspectors reviewed a sample of engineering evaluations completed for boric acid found on reactor coolant system piping and components to verify that the minimum

design code required section thickness had been maintained for the affected component(s). The inspectors also reviewed licensee corrective actions implemented for evidence of boric acid leakage to confirm that they were consistent with requirements of Section XI of the ASME Code and 10 CFR 50 Appendix B Criterion XVI.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program

.1 Biennial Review

a. Inspection Scope

The inspectors reviewed the facility operating history and associated documents in preparation for this inspection. During the week of February 13, 2006, the inspectors reviewed documentation, interviewed licensee personnel, and observed the administration of simulator operating tests associated with the licensee's operator requalification program. Each of the activities performed by the inspectors was done to assess the effectiveness of the licensee in implementing requalification requirements identified in 10 CFR 55, "Operators' Licenses." The evaluations were also performed to determine if the licensee effectively implemented operator requalification guidelines established in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and Inspection Procedure 71111.11, "Licensed Operator Requalification Program." The inspectors also reviewed and evaluated the licensee's simulation facility for adequacy for use in operator licensing examinations. The inspectors observed two operator crews during the performance of the operating tests. Documentation reviewed included written examinations, Job Performance Measures (JPMs), simulator scenarios, licensee procedures, on-shift records, simulator modification request records and performance test records, the feedback process, licensed operator qualification records, remediation plans, watchstanding, and medical records. The records were inspected against the criteria listed in Inspection Procedure 71111.11. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Quarterly Review

a. Inspection Scope

During the week of January 23, 2006, the inspectors observed and assessed licensed operator annual requalification activities. The simulated events were done using the licensee's plant specific simulator per Scenario 750204200, PT-3-475 fails low, a small steam generator tube leak requiring a fast load reduction, a total loss of component cooling water (CCW), and a complete tube rupture associated with the 3A steam generator. The inspectors observed the operator's use of 3-EOP-E-0, Reactor Trip and Safety Injection, 3-EOP-E-3, Steam Generator Tube Rupture; and off normal procedures, 3-ONOP-49.1, Deviation or Failure of Safety Related or Reactor Protection Channels, 3-ONOP-030, Component Cooling Water Malfunction, and 3-ONOP-71.2, Steam Generator Tube Leak. The operator's actions were checked to be in accordance with licensee procedures. Event classifications (including Alert) were checked for proper classification. The licensee did not simulate emergency plan notifications. The simulator board configurations were compared with actual plant control board configurations concerning recent plant modifications. The inspectors specifically evaluated the following attributes related to operating crew performance:

- Clarity and formality of communication
- Ability to take timely action to safely control the unit
- Prioritization, interpretation, and verification of alarms
- Correct use and implementation of off normal and emergency operation procedures and emergency plan implementing procedures
- Control board operation and manipulation, including high-risk operator actions
- Oversight and direction provided by operation's supervision, including ability to identify and implement appropriate technical specification actions, regulatory reporting requirements, and emergency plan actions and notification.

The inspectors also observed the administration of job performance measures (JPM's) in the plant specific simulator. These JPM's were 01041057302, Respond to Pressurizer Level Malfunction and 01062013503, Align Safety Injection for Cold Leg Recirculation.

b. Findings

Introduction: A Green inspector identified non-cited violation (NCV) of Technical Specification 6.8.1.a, Written Procedures, was identified when part of an emergency operating procedure step was not usable due to misunderstood equipment alignment and lack of procedural guidance.

Description: On January 24, 2006, the inspectors observed a simulator based scenario conducted as part of the licensed operator annual requalification exam. During a simulated steam generator tube rupture, operators used emergency operating procedure EOP-E-3, Steam Generator Tube Rupture, and directed chemistry personnel to verify the faulted steam generator using the DAM1 monitor. In the simulation, the operators used control board indications and a simulated report from chemistry (using the DAM1 monitor) to confirm the ruptured generator. As followup, the inspectors walked down the DAM1 system and determined that the radiation monitor was aligned to monitor main steam radiation from a composite flow from all six Turkey Point steam generators (both units). On questioning, the inspectors were informed that no procedure existed to isolate steam flow from the generators to allow DAM1 sampling of steam from only one generator. Similarly, flush time and sample geometry had not been considered for using the monitor with flow from only one generator.

The EOP-E-3 step provided six methods to identify a ruptured steam generator and likely a combination of steps would be selected by the operators for this activity. The steps in addition to using the DAM1 detector, included the following:

- 1) unexpected mismatch between any generator steamflow and feedflow. The inspectors verified that these indications for each steam generator were available.
- 2) unexpected increase in any steam generator level. The inspectors verified that steam generator level indication for each steam generator was available.
- 3) high radiation from any steam generator steamline sample. The inspectors verified that licensee procedure 0-NCAP-103, Secondary Radiochemistry Sampling and Analysis, provided for this sampling.
- 4) high radiation from any steam generator blowdown sample. The inspectors verified that licensee procedure 0-NCAP-103, Secondary Radiochemistry Sampling and Analysis, provided for this sampling.
- 5) high radiation on local readings of main steamlines or blowdown lines. The inspectors were informed that direct reading from the steam lines could be done, but identifying the ruptured steam generator using this method might be problematic due to the close proximity of the steam lines.

The inspectors considered that if the DAM1 monitor method was selected to identify or confirm the ruptured steam generator, delays or errors could occur that might extend the time before the ruptured generator was identified and isolated. The inspectors noted that licensee procedure 0-ADM-110, Emergency and Off-Normal Operating Procedure Verification and Validation Plan, in Step 5.1.2, required that EOP validation

be done to ensure that the applicable emergency procedure was usable. The DAM1 detector method to determine the ruptured steam generator was not usable without supporting procedures to isolate flow and ensure representative sampling.

Analysis: The performance deficiency associated with this finding was that the licensee failed to adequately validate emergency operating procedure 3/4-EOP-E-3, Step 2, identification of the ruptured steam generator using the DAM1 monitor. As a result, the confirmation or identification of a ruptured steam generator could be delayed due to confusion or error. The procedure quality attribute of the Barrier Integrity cornerstone was adversely affected. The finding was more than minor because it affected the ability to assure that a physical barrier (steam generator tubes) needed to protect the public from radionuclide releases was protected, by prompt identification and isolation of a rupture. Because no actual steam generator tube ruptures had occurred at Turkey Point, and therefore no actual open pathway had existed, the finding screened to be of very low safety significance (Green) using the MC 0609, Appendix A, SDP Phase 1 screening worksheet.

Enforcement: Turkey Point Technical Specification 6.8.1.a requires that written procedures recommended in Appendix A to NRC Regulatory Guide 1.33, Revision 2, February 1978, be implemented. The regulatory guide includes administrative requirements for procedure adherence, which is implemented in part, by licensee procedure, 0-ADM-110, Emergency and Off-Normal Operating Procedure Verification and Validation Plan. Procedure 0-ADM-110 includes a requirement in Step 5.1.2, that an EOP be validated to ensure that the procedure is usable. Contrary to the above, Turkey Point Emergency Operating Procedure 3/4-EOP-E-3, Steam Generator Tube Rupture, Step 2 c, was not adequately validated to ensure the procedure was usable in the determination of a ruptured steam generator using the DAM1 radiation monitor. In fact, the DAM1 detector provided only a composite radiation level of steam from all six steam generators and no procedure existed for identifying radiation in any one main steam line. The violation existed since the April 30, 2002 approval date of the EOP. When identified to the licensee, the issue was documented in the corrective action program as CR 2006-3540 and the licensee initiated a procedure change that supported using the DAM1 monitor to sample flow from one steam generator at a time. Because this failure to ensure that an emergency procedure was usable is of very low safety significance and has been entered into the licensee's corrective action program as CR 2006-3540, this violation is being treated as a Non-Cited violation (NCV), consistent with Section VI.A of the NRC Enforcement Policy: NCV 50-250&251/2006-02-01, Failure to ensure emergency operating procedure step is usable.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the following two equipment problems and associated condition reports to verify that the licensee's maintenance efforts met the requirements of 10 CFR 50.65 (Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants) and Administrative Procedure O-ADM-728, Maintenance Rule Implementation. The inspectors' efforts focused on maintenance rule scoping, characterization of maintenance problems and failed components, risk significance, determination of (a)(1) classification, corrective actions, and the appropriateness of established performance goals and monitoring criteria. The inspectors also interviewed responsible engineers and observed some of the corrective maintenance activities. The inspectors checked that when operator actions were credited to prevent failures, the operator was dedicated, at the location needed to accomplish the action in a timely manner, and that the action was governed by applicable procedures. Furthermore, the inspectors verified that equipment problems were being identified and entered into the corrective action program.

- CR 2003-2416, Loss of 3C transformer (System Health Report for System 002 (240 KV Switchyard) was reviewed for this inspection)
- CR 2006-6522, failure of RV-3-1412 to lift within specification, and CR 2006-6537, failure of RV-3-1406 to lift within specification

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors completed in-office reviews and control room inspections of the licensee's risk assessment of (seven) emergent or planned maintenance activities. The inspectors compared the licensee's risk assessment and risk management activities against the requirements of 10 CFR 50.65(a)(4); the recommendations of Nuclear Management and Resource Council 93-01, Industry Guidelines for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, Revision 3; and Procedures O-ADM-068, Work Week Management and O-ADM-225, On Line Risk Assessment and Management. The inspectors also reviewed the effectiveness of the licensee's contingency actions to mitigate increased risk resulting from the degraded equipment. The inspectors evaluated the following risk assessments during the inspection:

- January 9 to 11, when B standby steam generator feedwater pump was removed from service for preventive maintenance, 3A emergency diesel generator was tested per surveillance 3-OSP-023.1, and the Unit 4 startup transformer was switched out for insulator desalting.
- January 20, risk assessment for both units when 3A high head safety injection pump was removed from service for motor replacement, updated when A auxiliary feedwater pump was removed from service to repair the packing flange.
- January 25, risk assessment for both units when 3A emergency diesel generator was removed from service to repair a small radiator coolant leak.
- February 8, evolution for repairing the 3C SG main feedwater regulating valve positioner which included a load reduction to 97% power, and implementation of temporary procedure TP-06-0001, Operation of FCV-3-498 on a Handloader While at Power.
- February 22 and 23, risk assessment for failure of Power Range instrument N-43 during power ascension from 50% to 100% power. This included requirements for quadrant power tilt ratio surveillances on Unit 4.
- March 9, risk assessment for both Unit 3 Diesel Generators being declared inoperable due to jumper not installed to prevent diesels from operating in the Droop mode.
- March 27, Unit 4 risk assessment and management of switchyard maintenance, including removal of the southeast bus from service during Unit 3 safeguards equipment testing.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions

a. Inspection Scope

For the non-routine event described below, the inspectors reviewed operator logs and computer data to determine that the evolution was conducted safely and in accordance with plant procedures. Interviews with involved plant personnel were also done to assess the operator response. Specific checks were done to assess operator preparedness and performance in coping with non-routine events and transients.

- March 8, Loss of offsite power to 3A 4160 volt emergency bus and subsequent loading of the 3A emergency diesel generator. Implementation of the following procedures was reviewed: 3-ONOP-050, Loss of Residual Heat Removal; 3-OP-023, Emergency Diesel Generator; and 3-ONOP-004.10, Loss of Offsite Power while on Backfeed.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluationsa. Inspection Scope

The inspectors reviewed six interim disposition and operability determinations associated with the following condition reports to ensure that Technical Specification operability was properly supported and the system, structure or component remained available to perform its safety function with no unrecognized increase in risk. The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), applicable supporting documents and procedures, and interviewed plant personnel to assess the adequacy of the interim condition report disposition.

- CR 2006-166, Unit 4 auxiliary feedwater flow control valves discovered open due to MOVATS
- CR 2006-1467, Unit 4A emergency containment filter (ECF) spray valve, SV-4-2906, indicates dual when demanded closed.
- CR 2006-1776, 3A High head safety injection pump flinger ring came loose.
- CR 2006-5704, Control room condensing unit, E-17B, declared out of service due to the east fan not working.
- CR 2006-6205, Auxiliary feedwater steam supply valve 3-MOV-1403 actuator will not remain in manual after declutch lever is operated (repeat issue), Work Order 35018269, MOV inspect/stroke, was reviewed by the inspectors in the evaluation.
- CR 2006-8312, Nuts on anchor bolts found loose for control room vertical panels.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modificationa. Inspection Scope

The inspectors reviewed the documentation for the following Plant Change and Modification (PC/M) associated with Unit 3 and 4:

- C PC/M 00-027, Cold Pressure Mitigation System Setpoint Change. This PC/M increased the power operated relief valve low pressure setpoints from 415 psig

to 460 psig due to new pressure-temperature curves associated with technical specifications

The inspectors reviewed the 10 CFR 50.59 screening and evaluation, fire protection review, environmental review, ALARA screening, and license renewal review. The inspectors reviewed all associated plant drawings and updated Final Safety Analysis Report documents impacted by this PC/M and discussed the changes with plant staff.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

For the six 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 work orders (WO) and/or surveillance procedures (OSP):

- Unit 3, WO 35006686-01 for replacement of CV-3-2904 pilot operated lock-up valve associated with the 3A emergency containment cooler.
- Unit 3, WO 30007025-05 for A High head safety injection pump motor replacement using 0-OSP-62.2, Safety Injection.
- Unit 3, WO 36007413-01 and 35017589-01 associated with the repair of 3-HCV-758, residual heat removal heat exchanger flow control valve.
- Unit 4, WO 36007416-01 for replacement of 4A Charging pump piston valve seals and seats.
- Unit 3, WO 36006719-01 for breaker 3AA14 failing to close in response to sequencer signal.
- Unit 3, WO 34015275-01 to replace aging relays associated with 3A emergency diesel generator.

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities

.1 Unit 4 Short Duration Outage

During a short duration outage on Unit 4, the inspectors evaluated activities as described below, to verify the licensee considered risk in developing schedules, adhered to administrative risk reduction methodologies, and adhered to operating license and Technical Specification requirements that maintained defense-in-depth.

Shutdown Activities

a. Inspection Scope

The inspectors observed the Unit 4 shutdown, including the planned reactor trip from 21 percent power, to verify that defense in depth was maintained and the plant was controlled as specified in shutdown procedures, including emergency operating procedure E-0, Reactor Trip or Safety Injection; and 4-GOP-103, Power Operation to Hot Standby.

b. Findings

No findings of significance were identified.

Licensee Control of Outage Activities

a. Inspection Scope

During the outage, the inspectors checked the items or activities described below, to verify that the licensee followed technical specification requirements and maintained defense-in-depth commensurate with the outage risk-control plan for key safety functions.

- Containment visual leak inspection using surveillance procedure 0-OSP-041.26
- Replace nuclear instrument N-4-44 using work order 36004268

b. Findings

No findings of significance were identified.

Monitoring of Heatup and Startup Activities

a. Inspection Scope

The inspectors reviewed activities during reactor restart and power escalation to verify that reactor parameters were within safety limits and that the startup evolutions were done in accordance with pre-approved procedures and plans.

b. Findings

No findings of significance were identified.

.2 Unit 3 Refueling Outage

For the Unit 3 refueling outage that started on March 6, the inspectors evaluated licensee outage activities as described below, to verify the licensee considered risk in developing outage schedules, adhered to administrative risk reduction methodologies to control plant configuration, and adhered to operating license and Technical Specification requirements that maintained defense-in-depth.

Review of Outage Plan

a. Inspection Scope

Prior to the outage, the inspectors reviewed the licensee's outage risk control plan to verify that the licensee had performed adequate risk assessments and had implemented appropriate risk-management strategies when required by 10 CFR 50.65(a)(4).

b. Findings

No findings of significance were identified.

Monitoring of Shutdown Activities

a. Inspection Scope

The inspectors observed portions of the plant shutdown and cooldown in accordance with FPL procedure 3-GOP-305, Hot Standby to Cold Shutdown, to verify that cooldown restrictions and similar procedural requirements were followed.

During the shutdown, while attempting to place the B loop of residual heat removal into shutdown cooling, the residual heat removal system injection valve, 3-MOV-744B,

did not open when demanded. The licensee then placed the A loop of RHR in service and began an investigation to determine the cause of the failure. The initial results of the investigation identified that the motor had failed. However, at the end of the inspection period, additional inspection was needed to resolve this issue. Therefore, pending additional inspection this will remain open as unresolved item URI 50-250/2006-02-02, Failure of MOV-3-744B to open when demanded on March 7, 2006.

b. Findings

No findings of significance were identified.

Licensee Control of Outage Activities

a. Inspection Scope

During the outage, the inspectors observed the items or activities described below, to verify that the licensee maintained defense-in-depth commensurate with the outage risk-control plan for key safety functions and applicable Technical Specifications when taking equipment out of service.

- Clearance Activities
- Reactor Coolant System Instrumentation
- Electrical Power
- Residual Heat Removal (RHR) System Monitoring
- Spent Fuel Pit Cooling System Operation
- Inventory Control
- Reactivity Control
- Containment Closure

The inspectors also reviewed the licensee's responses to emergent work and unexpected conditions, to verify that resulting configuration changes were controlled in accordance with the outage risk control plan, and to verify that control-room operators were kept cognizant of the plant configuration.

On March 8, Unit 3 was in Mode 5, depressurized, with reactor coolant system level at approximately the vessel flange level. While restoring power to the 3C 480V Load Center following planned maintenance, the 3A safety related 4KV Bus was deenergized by the 3A Sequencer. This resulted in a temporary loss of residual heat removal flow which was restored within approximately seven (7) minutes. Reactor coolant system temperature increased from 113 degrees F to 140 degrees F. However, at the end of the inspection period, additional inspection was needed to resolve this issue. Therefore, pending additional inspection this will remain open as

unresolved item URI 50-250/2006-02-03, Loss of Unit 3 decay heat removal on March 8, 2006.

b. Findings

Introduction: A Green self-revealing non-cited violation (NCV) of Technical Specification 6.8.1, Procedures, was identified during review of a loss of offsite power event on March 8, 2006, when the 3A emergency diesel generator (EDG) voltage and frequency were found at lower than the specified values when the diesel was providing power to the 3A 4160 volt bus and associated safety equipment. The licensee later discovered that both Unit 3 diesels were inoperable since the installation of ground test devices on the Unit 3 startup transformer. The installation of the test devices caused the diesel control systems to act in the droop mode as opposed to the isochronous mode.

Description: Following a loss of offsite power/loss of decay heat removal event on Unit 3, it was identified that ground test devices installed in the Unit 3 startup transformer breaker cubicles during maintenance, caused the Unit 3 EDGs to respond to a loss-of-offsite power (LOOP) in droop mode instead of isochronous mode. In droop mode, EDG steady state output frequency (57.0 Hz) would be less than specified in technical specification surveillance requirements (60 ± 1.2 Hz); and therefore, both Unit 3 EDGs were considered inoperable during the startup transformer maintenance. The maintenance started on March 8 at about 7:00 am and a partial loss of offsite power event occurred at about 4:00 pm. Unit 4 was operating at full power during the event. Technical Specifications 3.8.1.1 and 3.8.1.2 required one of the Unit 3 diesel generators to be operable to support Unit 4 and Unit 3, respectively.

After the 3A bus lost offsite power, the diesel started and energized the bus, followed by sequencing on of an intake cooling water and component cooling water pump, as well as some 480 volt load centers and equipment. During review of plant status, operators identified that the diesel frequency and voltage were lower than expected, below the green band on control board indicators, and manual adjustment was made to restore these parameters. On later investigation of the need for manual adjustments, on March 9, the licensee identified the failure to install the jumpers when the grounding devices were installed. The cause of the missed action was the failure to implement procedure 3-PME-004.2, Unit 3 Startup Transformer Grounding, for the grounding evolution. Additionally, the inspectors noted that plant operators had chosen to reconfigure the plant by implementing a switching order to set the maintenance boundary rather than a clearance order. The switching order did not require the level of review that a plant clearance order would have required. The inspectors considered this to be a missed opportunity to have prevented this issue from occurring.

Enclosure

Analysis: The performance deficiency associated with this finding was the failure to implement procedures that protected the emergency diesel control circuitry when setting the maintenance boundary for isolation/grounding of the Unit 3 startup transformer. As a result, the control circuitry was adversely impacted when ground test devices were installed by maintenance personnel without required jumpers. The finding was more than minor because the operability of Mitigating System equipment, emergency diesel generators, was affected. The NRC Manual Chapter 0609, Appendix A screening was completed and the finding screened as Green because there was no actual loss of safety function. A Phase 2 significance assessment was not required. When identified by operators, the issue was documented in the corrective action program and the jumpers were installed. The cross-cutting aspect of human performance was affected, specifically regarding organization, in that the transformer work was not planned or conducted using the appropriate procedure.

Enforcement: Turkey Point Technical Specification 6.8.1.a requires that the applicable procedures in NRC Regulatory Guide 1.33, Revision 2, February 1978, be implemented. The regulatory guide includes procedures for changing the mode of operation of the onsite electrical system, which includes the Unit 3 startup transformer. The licensee implements this requirement, in part, with procedure 3-PME-004.2, Unit 3 Startup Transformer Grounding. Contrary to the above, on March 8, 2006, the Unit 3 startup transformer was removed from service, and grounded without implementing 3-PME-004.2, Unit 3 Startup Transformer Grounding, as required. As a result, jumpers needed to assure operability of the Unit 3 emergency diesel generator control circuitry were not installed and during a loss of offsite power event on the same day, manual adjustment of generator voltage and frequency were required. The violation existed for a period of about 24 hours until the condition was identified. When identified, the licensee confirmed that the other diesels were not affected, the jumpers were installed to restore operability of the 3B diesel generator, and the NRC was notified. The issue was documented in the licensee's corrective action program as CR 2006-7117. Because this finding is of very low safety significance and has been entered into the licensee's corrective action program, this violation is being treated as an NCV, consistent with Section VI. A of NRC Enforcement Policy: NCV 50-250&251/2006-02-04, Failure to implement procedures during maintenance results in diesel inoperability.

Refueling Activities

a. Inspection Scope

The inspectors observed fuel handling operations (removal and insertion) and other ongoing activities to verify that those operations and activities were being performed in accordance with technical specifications and approved procedures. Also, the inspectors observed refueling activities to verify that the location of the fuel assemblies

was tracked, from core offload through core reload. Checks were made of foreign material controls in vicinity of the open reactor vessel.

b. Findings

No findings of significance were identified.

Identification and Resolution of Problems

a. Inspection Scope

Periodically, the inspectors reviewed the items that had been entered into the licensee's corrective action program, to verify that the licensee had identified problems related to outage activities at an appropriate threshold and had entered them into the corrective action program. For the significant problems documented in the corrective action program and listed below, the inspectors reviewed the results of the licensee's investigations, to verify that the licensee had determined the cause (as applicable) and implemented appropriate corrective actions, as required by 10 CFR 50, Appendix B, Criterion XVI, Corrective Action.

- CR 2006-7667, Gouging observed on containment personnel airlock sealing surface.
- CR 2006-7690, Small flame developed while welding on diesel supply line to 3B EDG.
- CR 2006-8022, Reactor coolant drain tank pumps ran dead headed due to ECO 3-06-03-018.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors either reviewed or witnessed the following nine surveillance tests to verify that the tests met the Technical Specifications, the UFSAR, the licensee's procedural requirements and demonstrated the systems were capable of performing their intended safety functions and their operational readiness. In addition, the inspectors evaluated the effect of the testing activities on the plant to ensure that conditions were adequately addressed by the licensee staff and that after completion of the testing activities, equipment was returned to the positions/status required for the

system to perform its safety function. The tests reviewed included one inservice test (IST.)

- Unit 3, 3-OSP-023.1, Diesel Generator Operability Test (3A diesel generator).
- Unit 3, 3-OSP-75.2, Auxiliary Feedwater Train 2 Operability Verification.
- Unit 4, 0-OSP-041.26, Containment Visual Leak Inspection.
- Unit 4, 4-OSP-059.4, Power Range Nuclear Instrumentation Analog Channel Operational Test.
- Unit 3, 3-OP-041.4, Overpressure Mitigating System (OMS), Section 5.1.3, Cycle PORV and Block Valves, Preparation for OMS Operation.
- Unit 4, 4-OSP-063.1, Safeguards Actuation System Logic Test.
- Unit 3, 3-OSP-068.5, Containment Spray System Design Flow Inservice Test (IST)
- Unit 3, 3-OSP-062.5, Safety Injection Gas Intrusion Valve Testing
- Unit 3, 3-OSP-062.4, Safety Injection System - Full Flow Test.

b. Findings

Introduction: A Green self-revealing finding was identified when a maintenance technician operated an incorrect valve while conducting a main steam line pressure transmitter surveillance. The valve that was mistakenly closed was associated with a pressure instrument that was in service. The error caused an atmospheric steam dump valve to automatically fully open which in turn resulted in a Unit 4 steam pressure and power transient. The cause of the finding was related to the cross-cutting element of human performance, specifically an individual personnel error.

Description: On March 23, 2006, plant procedure 4-PMI-074.19, Calorimetric Instrumentation Periodic Calibration, was being performed on Unit 4. An Instrument and Controls technician operated the wrong valve which caused a pressure spike on the controlling pressure channel for atmospheric steam dump valve CV-4-1606. The inspectors reviewed the procedure and concluded that it was unclear. Specifically, instead of specifying closure of valve 4-10-251, the procedure called for closing the isolation valve for PT-4-1606X, which was adjacent. The technician shut 4-10-249, also adjacent, which was the isolation valve for PT-4-1606, the controlling pressure channel for the A main steam header. As a result with Unit 4 operating at full power, the A steam generator atmospheric dump valve fully opened causing a steam pressure and reactor power transient. Plant operators immediately took manual control and shut the atmospheric valve from the control room, limiting the transient.

Analysis: The finding is greater than minor because a human error adversely affected the Initiating Events cornerstone objective of limiting the likelihood of events that upset plant stability during power operations. Because mitigating systems were not challenged and remained available, the finding screened to be of very low safety

significance (Green) using the NRC Manual Chapter 0609, Significance Determination Process, Phase 1 Worksheet. This finding is in the licensee's corrective action program as CR 2006-9096. The cause of the finding is related to the cross cutting aspect of Human Performance, specifically an individual personnel error.

Enforcement: No violation of regulatory requirements occurred. The inspectors determined that the finding did not represent a noncompliance because it occurred on non-safety-related plant equipment. This finding is being tracked as FIN 50-251/2006-02-05, Human performance error results in a secondary plant transient.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the temporary modifications listed below to ensure that it did not adversely affect the operation of the system. The inspectors screened temporary plant modifications for systems that were ranked high in risk for departures from design basis and for inadvertent changes that could challenge the systems to fulfill their safety function. On closed temporary modifications, the inspectors verified appropriate post maintenance testing had been completed after the modification had been removed and system restored. Condition report, CR 2006-2922 , and FPL Quality Assurance Audit QAO-PTN-05-04, Configuration Management were reviewed by the inspectors. The inspectors conducted plant tours and discussed system status with engineering and operations personnel to check for the existence of temporary modifications that had not been appropriately identified and evaluated.

- TSA 04-06-041-2, Temporary Indicator for Reactor Vessel Flange Leak-Off Temperature Indication.
- TSA 03-06-068-004, 3B Containment Spray pump temporary feed to perform system full flow test.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness (EP)

1EP2 Alert and Notification System (ANS) Testing

a. Inspection Scope

The inspectors evaluated the adequacy of licensee methods for testing the alert and notification system in accordance with NRC Inspection Procedure 71114,

Attachment 02, "Alert and Notification System Testing." The applicable planning standard 10 CFR 50.47(b)(5) and related requirements contained in Section IV.D of Appendix E to 10 CFR Part 50 were used as reference criteria. The evaluation criteria contained in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1; Federal Emergency Management Agency (FEMA) Report REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants"; and the licensee's FEMA-approved ANS design report were also used as references. This inspection activity represents one sample on a biennial cycle.

The inspectors reviewed various documents which are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization (ERO) Augmentation

a. Inspection Scope

The inspectors reviewed the ERO augmentation staffing requirements and the process for notifying the ERO to ensure the readiness of key staff for responding to an event and timely facility activation. The results of the unannounced off-hour augmentation drill conducted on December 17, 2004 were reviewed. The inspectors examined the provisions for a backup notification system. A sample of problems identified from augmentation drills and ERO pager system tests was reviewed to assess the effectiveness of corrective actions.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 03, "Emergency Response Organization Augmentation." The applicable planning standard 10 CFR 50.47(b)(2) and related requirements contained in Appendix E to 10 CFR Part 50 were used as reference criteria. This inspection activity represents one sample on a biennial cycle.

The inspectors reviewed various documents which are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes

a. Inspection Scope

The inspectors reviewed the Radiological Emergency Plan (REP) changes for Revisions 43 and 44 (the latter was the version in effect at the time of the inspection).

EAL modifications made in Revision 44 to address NRC Bulletin 2005-02 were reviewed in detail.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 04, "Emergency Action Level and Emergency Plan Changes." The applicable planning standard 10 CFR 50.47(b)(4) and related requirements contained in Appendix E to 10 CFR Part 50 were used as reference criteria. This inspection activity represents one sample on an annual cycle.

The inspectors reviewed various documents which are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

a. Inspection Scope

The inspectors reviewed the corrective actions identified through the EP program to ascertain the significance of the issues and to determine whether repetitive problems were occurring. The facility's self-assessments and audits were reviewed to assess the licensee's ability to be self-critical, thus avoiding complacency and degradation of its EP program. In addition, the inspectors reviewed the licensee's self-assessments and audits to assess the completeness and effectiveness of a sample of EP-related corrective actions. Documentation of all emergency declarations during 2004-2005 was reviewed in detail.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 05, "Correction of Emergency Preparedness Weaknesses and Deficiencies." The applicable planning standard 10 CFR 50.47(b)(14) and related requirements contained in Appendix E to 10 CFR Part 50 were used as reference criteria. This inspection activity represents one sample on a biennial cycle.

The inspectors reviewed various documents which are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety (OS)

2OS1 Access Controls To Radiologically Significant Areas

a. Inspection Scope

Access Controls. The inspectors reviewed and evaluated licensee guidance and its implementation for controlling and monitoring worker access to radiologically significant areas and tasks associated with Unit 3 and Unit 4 operations. The inspectors evaluated changes to and adequacy of procedural guidance; directly observed implementation of established administrative and physical radiation controls; appraised occupational worker and health physics technician (HPT) knowledge of and proficiency in implementing radiation protection activities; and assessed occupational worker exposures to radiation and radioactive material.

The inspectors directly observed controls established for workers and HPT staff involved in work/tasks associated with actual/potential airborne radioactivity area, radiation area, high radiation area (HRA), locked-high radiation area (LHRA), and very high radiation area (VHRA) conditions. Controls and their implementation for LHRA keys and for storage of irradiated material within the Unit 4 spent fuel pool (SFP) were reviewed and discussed in detail. Established radiological controls were evaluated for a Unit 3 'at power' containment entry and for preparations associated with Unit 4 SFP transfer canal maintenance activities. In addition, licensee controls for areas where dose rates could change significantly were reviewed and discussed.

For selected tasks, the inspectors attended pre-job briefings and reviewed radiation work permit (RWP) details to assess communication of radiological control requirements to workers. Occupational workers' adherence to selected RWPs and health physics technician proficiency in providing job coverage were evaluated through direct observations and interviews with licensee staff. Electronic dosimeter (ED) alarm set points and worker stay times were evaluated against area radiation survey results for selected Unit 3 and Unit 4 'at power' entries conducted since June 2005. Worker exposure as measured by electronic dosimeter and licensee evaluations of skin doses

resulting from discrete radioactive particle or dispersed skin contamination events were reviewed and assessed independently.

During facility tours within the radiologically controlled areas (RCA), the inspectors observed and evaluated postings and physical controls established for access to the Unit 3 reactor building containment; selected Unit 3 and Unit 4 auxiliary building (AB) locations/equipment; radioactive material/waste processing equipment, storage, and shipping locations; and the low level radioactive material storage facilities. The inspectors independently measured radiation dose rates and contamination levels associated with Unit 3 and Unit 4 auxiliary building and radioactive waste processing areas/equipment. Results were compared to current licensee surveys and assessed against established postings and radiation controls. Licensee controls were reviewed

and evaluated in detail for selected Unit 3 and Unit 4 auxiliary building areas/equipment and the Unit 4 spent fuel pool.

The inspectors evaluated implementation and effectiveness of licensee controls for both airborne and external radiation exposure. The inspectors reviewed and discussed selected whole-body count (WBC) analyses conducted between June 1, 2005 and January 31, 2006, to evaluate implementation and effectiveness of personnel monitoring and administrative and physical controls including air sampling, barrier integrity, engineering controls, and postings for tasks having the potential for individual worker internal exposures to exceed 30 millirem Committed Effective Dose Equivalent. Effectiveness of external radiation exposure controls were evaluated through review and discussions of individual worker dose as measured by electronic dosimeter for selected tasks.

Radiation protection activities were evaluated against Updated Final Safety Analysis Report (UFSAR), Technical Specifications (TS), and 10 Code of Federal Regulations (CFR) Parts 19 and 20 requirements. Specific assessment criteria included UFSAR Section 11, Radioactive Waste Management, and Section 12, Radiation Protection; 10 CFR 19.12; 10 CFR 20, Subpart B, Subpart C, Subpart F, Subpart G, Subpart H, and Subpart J; TS Sections 6.8.1, Procedures, and 6.12, High Radiation Area; and approved procedures. Detailed procedural guidance and records review for this inspection area are listed in Sections 2OS1, 2OS3, and 4OA1 of the report Attachment.

Problem Identification and Resolution (PI&R) Licensee Corrective Action Program (CAP) documents associated with access control to radiologically significant areas were reviewed and assessed. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with Nuclear Administrative Procedure (NAP)-204, Condition Reporting, Revision (Rev.) 6. Licensee CAP documents associated with access control issues, personnel radiation

monitoring, and personnel exposure events reviewed and evaluated in detail during inspection of this program area are identified in Sections 2OS1, 2OS3, and 4OA1 of the report Attachment.

The inspectors completed 21 of the specified line-item samples detailed in Inspection Procedure (IP) 71121.01.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

a. Inspection Scope

Radiation Monitoring Instrumentation and Post-Accident Sampling

During tours of the plant areas, the inspectors observed installed radiation detection equipment including the following instrument types: Area Radiation Monitors, Continuous Air Monitors, Personnel Contamination Monitors (PCMs), and components of the Post-Accident Sampling System. The inspectors observed the physical location of the components, noted the material condition, and compared sensitivity ranges with the UFSAR details.

During equipment walk-downs, the inspectors observed functional checks of various fixed and portable radiation monitoring/detection instruments. The observations included source/response checks of a PCM-2, a small article monitor (SAM)-9, and WBC 'fast scan' equipment. The inspectors reviewed calibration records and discussed the functional testing and testing intervals for selected PCM and portal monitor (PM) equipment located at the RCA exit area. PCM equipment detection capabilities were demonstrated using a low-level mixed radionuclide source that was passed through the equipment. The inspectors also observed instrument calibrations, including a PCM-2 and an Eberline RM-20. The 10 CFR Part 61 analysis for Dry Active Waste was reviewed to determine if calibration and response check sources are representative of the plant source term.

The inspectors reviewed calibration records for select PCM, PM, SAM, and WBC equipment including RAD 6311 A/B [Containment High Range], ARMS RD 1420 [Control Room Area], ARMS RD-3-1421 [Spent Fuel Pit Area], ARMS RD-1406 30' [Containment Area 30' Elevation], ARMS RD-1405 58' [Containment Area 58' Elevation], and Unit 3 RD-20 PRMS [Reactor coolant system Let Down] radiation monitors. The records were evaluated to determine frequency and adequacy of the calibrations. Calibration status of portable survey instruments was noted during

inspection of storage areas for 'ready-to-use' equipment, equipment taken for use at the health physics office, and instruments observed in use during plant walk-downs. In addition, training provided to workers conducting process radiation monitor calibrations was reviewed.

Operability and reliability of selected radiation detection instruments were reviewed against details documented in the following: 10 CFR Part 20; NUREG-0737, Clarification of TMI Action Plan Requirements; TS Section 3; UFSAR Chapter 12; and applicable licensee procedures. Documents reviewed during the inspection are listed in Section 2OS3 of the report Attachment.

Self-Contained Breathing Apparatus (SCBA) and Protective Equipment Selected SCBA units staged for emergency use in the Control Room, the Technical Support Center (TSC) and Health Physics Storage Room located at the RCA access point were inspected for material condition, air pressure, number of units available, and availability of different mask sizes. The inspectors also reviewed the availability of corrective lens inserts (spectacles) for emergency response SCBA users including Control Room operators, maintenance personnel and health physics technicians. The inspectors reviewed maintenance records for components of selected SCBA units for the past five years and certification records associated with supplied air quality.

Repairs of SCBA equipment were evaluated through a review of manufacturer's service documents. In addition, selected Control Room operators were interviewed to determine their knowledge of available SCBA equipment locations, including corrective lens inserts, if needed, and their training on bottle change-out during periods of extended SCBA use. Respirator qualification records were reviewed for several Control Room operators and Maintenance department personnel assigned emergency response duties. Medical qualifications of several SCBA users were reviewed as part of the SCBA certification process.

Licensee activities associated with periodic surveillance inspections, maintenance and use of respiratory protection equipment were reviewed against RG 8.15, Acceptable Programs for Respiratory Protection; American National Standards Institute (ANSI)-Z88.2-1992, American National Standard for Respiratory Protection; and applicable licensee procedures. Documents reviewed during the inspection are listed in Section 2OS3 of the report Attachment.

Problem Identification and Resolution Selected CRs associated with radiation protection instrumentation and protective equipment were reviewed and assessed. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with NAP-204, Condition Reporting, Rev. 6. Documents reviewed are listed in Section 2OS3 of the report Attachment.

The inspectors completed 10 of the specified line-item samples detailed in IP 71122.01.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

a. Inspection Scope

Effluent Monitoring and Radwaste Equipment During inspector walk-downs, accessible sections of the liquid and gaseous radioactive waste (radwaste) processing and effluent systems were assessed for material condition and conformance with system design diagrams. The inspection included drain tanks, monitor tanks, waste monitor tanks, waste holdup tanks, demineralizer system, liquid waste system pumps, valves, and piping, the Waste Disposal System Liquid Effluent Monitor (R-18), gas decay tanks, Plant Vent Gas Monitor (R-14), Containment Air Particulate Monitors (R3-11, R4-11), Containment Radioactive Gas Monitors (R3-12, R4-12), Plant Vent SPING (RAD-6304), Unit 3 Spent Fuel Pit SPING (RAD-3-6418), and associated airborne effluent sample lines. The inspectors interviewed chemistry supervision and operations personnel regarding radwaste equipment configuration and effluent monitor operation.

The inspectors reviewed performance records and calibration results for selected radiation monitors, flowmeters, and air filtration systems. For monitors R-14, R-18, R4-11, R4-12, RAD-6304, and RAD-3-6418, the inspectors reviewed the two most recent calibration records. In addition, the inspectors reviewed the results of primary calibrations and subsequent transfer standard calibrations performed for R-3/4-11, R-3/4-12, R-14, R-18, R-3/4-15 (steam jet air ejector noble gas monitors) and R-3/4-19 (steam generator blow-down monitors). The inspectors also verified monitor setpoints in the control room for R-14, R-11, and R-12. The inspectors reviewed the out-of-service logbook for September 2005 and verified that required compensatory sampling was performed. The last two surveillances on the Control Room Emergency Ventilation System and the most recent surveillances on the Unit 3 and Unit 4 Emergency Containment Filter Systems were reviewed. Performance and operations of the systems were reviewed and discussed with cognizant licensee personnel. In addition, the supply and exhaust ventilation ducts for auxiliary building laundry room were observed and evaluated for material condition and current flow pathways.

Installed configuration, material condition, operability, and reliability of selected effluent sampling and monitoring equipment were reviewed against details documented in the following: 10 CFR Part 20; 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 Plants; ANSI - N13.1-1969, Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities; TS Section 6; the Offsite Dose Calculation Manual (ODCM), Rev. 21; and UFSAR, Chapters 1 and 11. Procedures and records reviewed during the inspection are listed in Section 2PS1 of the report Attachment.

Effluent Release Processing and Quality Control (QC) Activities The inspectors directly observed the collection of reactor coolant system samples and discussed the procedures and processes followed by chemistry personnel for obtaining waste gas samples and liquid effluent samples from waste monitor tanks. In addition, the inspectors discussed the process for performing liquid and gaseous releases with operations personnel, including walking down the system alignments and verifications that are performed. Chemistry technician proficiency in collecting, processing, and counting samples, as well as preparing the applicable release permits, was evaluated.

QC activities associated with gamma spectroscopy were discussed with count room technicians and Chemistry supervision. The inspectors reviewed daily QC data logs from November 10, 2005 to February 7, 2006 for High Purity Germanium (HPGe) detectors No. 1, 2, and 3, and reviewed licensee procedural guidance for count room QC activities. The inspectors also reviewed the QC data for the liquid scintillation counters. The inspectors reviewed calibration records for HPGe detector No. 3 (select counting geometries), liquid scintillation counters, and an alpha/beta proportional counter. In addition, results of the radiochemistry cross-check program for 1st quarter 2004 through 2nd quarter 2005 were reviewed and discussed with cognizant licensee individuals.

Selected portions of procedures for effluent sampling, processing, and release were evaluated for consistency with licensee actions. Eight liquid and two gaseous release permits were reviewed against ODCM specifications for pre-release sampling and effluent monitor setpoints. For the liquid releases reviewed, the inspector verified the performance of supplemental sampling for releases with the main liquid effluent monitor (R-18) out of service. The inspectors discussed performance of pre-release sampling and analysis, release permit generation, and radiation monitor setpoint adjustment with chemistry technicians and control room operators. The inspectors also observed closure of a release permit by a chemistry technician. The inspectors reviewed the 2003 and 2004 annual effluent reports to evaluate reported doses to the public and ODCM changes. Public dose calculations were reviewed and discussed with cognizant licensee personnel. In addition, ODCM changes were discussed with design engineering and chemistry personnel.

Observed task evolutions, count room activities, and offsite dose results were evaluated against details and guidance documented in the following: 10 CFR Part 20 and Appendix I to 10 CFR Part 50; ODCM; RG 1.21; RG 1.109, Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50 Appendix I; NRC regulatory guide 1.33,

Quality Assurance Program Requirements (Operation); and TS Section 6. Procedures and records reviewed during the inspection are listed in Section 2PS1 of the report Attachment.

Problem Identification and Resolution Seven CRs, an audit, and a self-assessment associated with effluent release activities were reviewed and assessed. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve selected issues in accordance with procedure NAP-400, Condition Reporting, Rev. 6. Reviewed documents are listed in Section 2PS1 of the report Attachment.

The inspectors completed nine of the specified line-item samples detailed in IP 71122.01.

b. Findings

Introduction. A Green non-cited violation (NCV) of TS 6.8.1.e was identified by the inspectors for failure to implement quality control activities consistent with RG 1.21 guidance to maintain representative sampling and monitoring of particulates for the main plant vent airborne effluent pathway.

Description. The inspectors noted that licensee procedures 0-NCZP-051.3, Obtaining Plant Effluent Samples via the SPING Monitors During Non-Emergency Conditions, and NCCP-210, SPING and DAM Monitor Channel Checks, stated that isokinetic sampling was assured provided the plant vent flow rate was between 64,000 and 96,000 standard cubic feet per minute (scfm) and the Plant Vent System Particulate Iodine and Noble Gas (Plant Vent SPING) monitor (RAD-6304) sampler flow rate was between 38 and 58 liters per minute (lpm). The inspectors determined that if the plant vent flow rate was fixed at 80,000 scfm, the prescribed range on the sampler flow rate (38 to 58 lpm) would ensure isokinetic sampling. The inspectors further determined that variations in the plant vent flow rate would require varying the operability range for the sampler flow rate to ensure isokinetic conditions were maintained.

In 2004, the licensee initiated CR 2004-0253 to address anisokinetic sampling conditions of the Plant Vent SPING in response to NCV 05000250,251/2004002-02. The CR stated that when the Plant Vent SPING was installed, the sampler flow rate was optimized for an effluent flow rate of 100,000 scfm \pm 20 percent (%) to comply with the requirements of NUREG-0737 and ANSI N13.1-1969. The CR further stated

that several years prior to 2004 the plant vent effluent flow rate was reduced to a median 77,000 scfm and the Plant vent SPING sampler flow rate was not changed, creating an anisokinetic condition.

The corrective actions for CR 2004-0253 included optimizing the sampler flow rate to correlate with 80,000 scfm plant vent flow which resulted in a Plant Vent SPING sampler flow rate of 48 lpm. To allow for sampler fluctuations, the sampler flow rate was procedurally set at 48 +/- 5 lpm. In addition, a tolerance of 80,000 ±16,000 scfm was allowed for the operability range of the plant vent effluent flow. No formal engineering evaluation was performed to determine the appropriateness of these operating parameters for maintaining isokinetic sampling of the plant vent or otherwise account for nonrepresentative sampling conditions. In February 2005, sampling concerns on the Steam Jet Air Ejector SPING, which also is operated using procedure 0-NCZP-051.3, resulted in the acceptable sampler flow rate being procedurally changed to 48 ±10 lpm. Again, no formal engineering review was performed to determine the effect this change would have on the ability to maintain isokinetic sampling of the plant vent.

The inspectors reviewed records of routine documentation of plant vent and Plant Vent SPING sampler flow rates for September 1-30, 2005. For 17 days in September, the sampler velocity exceeded the plant vent velocity by more than 20 percent. For example, on September 18 the plant vent was operating at 73,000 scfm while the sampler flow rate was 59 lpm. These flow rates correspond to linear velocities of 1.9 E+3 ft/min and 2.6 E+3 ft/min respectively, which is a difference of approximately 35 percent. The licensee reviewed the data from December 2004 to December 2005 and determined the sampler was operating with a velocity exceeding 20% of the Plant Vent velocity for 20 days. This data indicates that, when operating within the procedurally acceptable flow rates, the Plant Vent and sampler velocities were periodically anisokinetic and representative sampling of particles was not assured. For the example cited, small particles were preferentially collected by the Plant Vent SPING, resulting in a potential underestimate of the particulate activity of the effluent stream.

Analysis. The inspectors noted that the failure to ensure representative sampling of particulates in airborne effluents in the plant vent, as evidenced by failing to maintain isokinetic sampling conditions between the plant vent and Plant Vent SPING, is a performance deficiency. The failure to ensure representative sampling of particulates in the plant vent is greater than minor because it is associated with the Public Radiation Safety Cornerstone and affects the cornerstone objective of assuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. The failure to maintain isokinetic sampling conditions for the plant vent effluent streams or otherwise account for nonrepresentative sampling conditions could result in

inaccurate measurement and reporting of airborne particulate radionuclides in samples and resultant dose estimates. The finding was evaluated using the Public Radiation Safety significance determination process. This issue was related to the effluent release program and potentially resulted in an impaired ability to assess dose but did not result in the failure to assess dose, as the licensee had other means by which dose from particulate releases could be assessed, and the licensee did not exceed the limits in 10 CFR 20.1301(d) or Appendix I to 10 CFR 50. For these reasons, the significance determination evaluation concluded that the issue was of very low safety significance. A contributing cause of the finding is related to the cross-cutting element of problem identification and resolution, specifically, corrective actions, in that the licensee's corrective actions for the previous finding failed to evaluate the main plant vent and SPING RAD-6304 sampler flowrates for maintaining representative sampling throughout the entire procedural limit ranges specified in 0-NCSP-051.3 and NCCP-210.

Enforcement. TS 6.8.1.e requires written procedures to be established, implemented, and maintained covering the QC Program for effluent monitoring using the guidance in RG 1.21. RG 1.21 references ANSI N13.1-1969 as an acceptable standard which includes general principles and guidance for representative sampling of particulates in airborne effluent streams. The standard specifies, in part, that nonrepresentative sampling can result when velocities are anisokinetic. Contrary to the above, changes to the main Plant Vent SPING flowrate limits resulted in operation of the equipment outside of the design bases specified to maintain representative sampling conditions for particulates on several occasions in September 2005.

The failure to maintain design basis isokinetic flowrates for the plant vent particulate sampling system was determined to be of very low safety significance (Green) and has been entered into the licensee's corrective action program (CR 2006-3820). This violation is being treated as an NCV consistent with Section VI.A.1 of the NRC Enforcement Policy: NCV 05000250,251/2006002-06, Failure to implement adequate quality controls to ensure representative sampling for particulates in the main Plant Vent SPING.

2PS3 Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program

a. Inspection Scope

REMP Implementation The licensee's Annual Radiological Environmental Operating Reports for Calendar Year (CY) 2003 and CY 2004 were reviewed and discussed with cognizant licensee representatives. The inspectors evaluated the reported data for trends in radionuclide concentrations, anomalous/missing data, and land-use census information. Report details were assessed for required monitoring frequencies,

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sample types and locations, and resultant data trends. QC activities and data for selected sample types listed in the reports were reviewed and evaluated including inter-laboratory comparison results and semiannual sample pump air flow calibration data.

Equipment operational status and staff proficiency for implementing REMP activities were assessed through review of records, observations of equipment material condition and operating characteristics, and through assessment of selected sample collection activities. The inspectors reviewed and evaluated procedural guidance and its implementation as well as flow calibration data for pumps used in REMP airborne sampling systems. The collection of weekly air particulate filters/charcoal cartridges and air flow rate determinations were observed at sampling station locations T-41 (a supplemental station located at the day care center), T-52, T-58, T-71, and T-72. Collection of surface water at sampling stations T-75 (a supplemental station), T-81, T-84, and T-08W (a new supplemental station); sediment samples at sampling stations T-04, T-09, T-81 and T-84, and T-85; and vegetation samples at sampling station T-41, were observed and discussed. During observations of sample collection, the inspectors evaluated the proficiency of staff collecting the samples, and assessed the adequacy and implementation of collection techniques. The placement and material condition of thermoluminescent dosimetry (TLD) equipment were assessed at sample station locations T-41, T-52, T-58, T-71, and T-72. The inspectors independently assessed selected TLD and air sampling locations and compared the current location data to ODCM-specified locations. REMP guidance, implementation, and results were reviewed against ODCM, Rev. 13, guidance and applicable procedures listed in Section 2PS3 of the report Attachment.

Current licensee programs for monitoring, tracking, and documenting the results of both routine and abnormal liquid releases to the onsite and offsite surface water or ocean environs were reviewed and discussed in detail. Specifically, the inspectors reviewed and discussed the effect of routine effluent liquid releases made in accordance with ODCM requirements on supplemental surface water sample tritium concentration data reported for the onsite cooling canals and selected offsite locations. In addition, reports associated with abnormal liquid releases and corrective actions initiated since CY 1980 were reviewed and discussed with responsible licensee representatives to evaluate the potential onsite/offsite environmental impact of significant leakage/spills from onsite systems, structures, and components. Finally, licensee current capabilities and routine surveillances to minimize and rapidly identify any abnormal leaks from liquid radioactive waste tanks, processing lines, and spent fuel pools, were reviewed and discussed in detail.

Meteorological Monitoring Program Licensee program activities to assure accuracy and availability of meteorological monitoring data were evaluated through review of calibration and surveillance data for CY 2004 and CY 2005 and direct observation of

equipment and data readouts at the primary tower (South Dade Tower), the backup tower (Land Utilization Tower), and the control room. Current calibration data were reviewed and equipment performance, reliability, and conduct of routine surveillances were discussed with operations and maintenance staff responsible for tower equipment maintenance and surveillances. Meteorological data availability were reviewed and discussed with licensee representatives for the periods of CY 2004 and CY 2005. The inspectors also verified consistency between meteorological tower local readouts and control room data.

Meteorological instrument operation, calibration, and maintenance were reviewed against details listed in the UFSAR, Chapter 2.6, Meteorology; NRC Safety Guide 23, Onsite Meteorological Programs-1972; ANSI/ANS-3.11-2000, Determining Meteorological Information at Nuclear Facilities; and RG 4.15, Quality Assurance for Radiological Monitoring Programs (Normal Operation) - Effluent Streams and the Environment, Revision 1; and applicable licensee procedures. Reviewed documents and data are listed in Section 2PS3 of the report Attachment.

Unrestricted Release of Materials from the RCA Radiation protection program activities associated with the unconditional release of materials from the RCA were reviewed and evaluated. The inspectors directly observed surveys of potentially contaminated materials released from the RCA using the SAM-9 equipment. In addition, SAM-9 equipment sensitivity was assessed using a low level radioactive source, i.e., activity approximately 5000 disintegrations per minute (dpm). To evaluate the appropriateness and accuracy of release survey instrumentation, radionuclides identified within recent radwaste stream analyses were compared against current calibration and performance check source radionuclide types. Current calibration and performance check data were reviewed and discussed. In addition, licensee guidance to evaluate survey requirements for hard-to-detect radionuclides was reviewed and discussed with licensee personnel.

The licensee practices and implementation of monitoring for unconditional release of materials from the RCA were evaluated against 10 CFR Part 20, TS, FSAR Section 12, and applicable procedures. The applicable licensee guidance, calibration records, and performance data that were reviewed are listed in Section 2PS3 of the report Attachment.

Problem Identification and Resolution Selected licensee CAP documents including Condition Report (CR) documents associated with REMP activities and meteorological monitoring activities were reviewed and discussed with responsible licensee representatives. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with licensee procedure NAP-204, Condition Reporting, Rev. 6. Specific documents reviewed and

evaluated in detail for these program areas are identified in Sections 2OS3 and 2PS3 of the report Attachment.

The inspectors completed 10 of the specified line-item samples detailed in inspection procedure IP 71122.03.

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES**

4OA1 Performance Indicator (PI) Verification

.1 Emergency Preparedness

a. Inspection Scope

The inspectors reviewed the licensee's procedure for developing the data for the Emergency Preparedness Performance Indicators, which are: (1) Drill and Exercise Performance (DEP); (2) Emergency Response Organization (ERO) Drill Participation; and (3) Alert and Notification System Reliability. The inspectors examined data reported to the NRC for the period January-December 2005. Procedural guidance for reporting PI information and records used by the licensee to identify potential PI occurrences were also reviewed. The inspectors verified the accuracy of the PI for ERO DEP through review of a sample of drill and event records. The inspectors reviewed selected training records to verify the accuracy of the performance indicators for drill participation of personnel assigned to key positions in the ERO. The inspectors verified the accuracy of the performance indicators for ANS reliability through review of a sample of the licensee's records of periodic system tests.

The inspection was conducted in accordance with NRC Inspection Procedure 71151, "Performance Indicator Verification." The applicable planning standard 10 CFR 50.9 and NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 3, were used as reference criteria. This inspection activity represents three samples on an annual cycle.

b. Findings

No findings of significance were identified.

.2 Initiating Event and Mitigating Systems

a. Inspection Scope

The inspectors checked licensee submittals for the performance indicators (PIs) listed below for the period January 1, 2004 through December 31, 2005, to verify the accuracy of the PI data reported during that period. Performance indicator definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Rev. 2, were used to check the reporting for each data element. The inspector checked licensee event reports (LERs), operator logs, plant status reports, condition reports (CRs), system health reports, and performance indicator data sheets to verify that the licensee had identified the cumulative safety system unavailability and required hours, as applicable. In addition, the inspectors interviewed licensee personnel associated with performance indicator data collection, evaluation, and distribution. The inspectors checked that deficiencies affecting the licensee's performance indicator program were entered into the corrective action program and appropriately resolved.

Reactor Safety Cornerstone

- Safety System Unavailability, Emergency AC Power
- Initiating Events: Scrams with Loss of Normal Heat Removal

b. Findings

No findings of significance were identified.

.3 Public Radiation Safety Cornerstone

a. Inspection Scope

The inspectors reviewed the Radiological Control Effluent Release Occurrences PI results from April 1, 2005, through December 31, 2005. For the review period, the inspectors assessed cumulative and projected doses to the public, and out-of-service (OOS) effluent radiation monitors and implementation of compensatory sampling and subsequent results. The inspectors also reviewed licensee procedural guidance for collecting and documenting PI data. Documents reviewed are listed in Section 2PS1 of the report Attachment.

b. Findings

No findings of significance were identified.

.4 Occupational Radiation Safety Cornerstone

a. Inspection Scope

The inspectors reviewed the Occupational Exposure Control Effectiveness PI results from April 1, 2005, through December 31, 2005. For the assessment period, the inspectors reviewed dosimetry alarm logs, radiological event reports, and CRs related to radiologically significant area controls. The inspectors also reviewed licensee procedural guidance for collecting and documenting PI data. Documents reviewed are listed in Sections 2OS1 and 4OA1 of the report Attachment.

The inspectors completed two of the specified line-item samples detailed in IP 71151.

b. Findings

No findings of significance were identified.

4OA2 Problem Identification and Resolution

.1 Daily Review

a. Inspection Scope

As required by Inspection Procedure 71152, Identification and Resolution of Problems, and to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a screening of items entered daily into the licensee's corrective action program. This review was accomplished by reviewing daily printed summaries of condition reports and by reviewing the licensee's electronic condition report database. Additionally, reactor coolant system unidentified leakage was checked on a daily basis to verify no substantive or unexplained changes.

b. Findings

No findings of significance were identified

.2 Annual Sample Review

a. Inspection Scope

The inspectors selected the following condition report (CR) for detailed review and discussion with the licensee. The condition report was reviewed to ensure that an appropriate evaluation was performed and appropriate corrective actions were specified and prioritized. Other attributes checked included disposition of operability,

resolution of the problem including cause determination and corrective actions. The inspectors evaluated the condition report in accordance with the requirements of the licensee's corrective actions process as specified in NAP-204, Condition Reporting. As part of the review, the inspectors also reviewed CR 2006-6522 and Licensee Event Report 50-250/2004-04.

CR 2006-6537, Relief valve RV-3-1406 does not lift within technical specification tolerances. .

b. Findings

No findings of significance were identified

4OA3 Event Followup

.1 (Closed) LER 05000251/2005002-01, Revised Automatic Reactor Trip due to Turkey Point Unit 4 Transformer Failure

The revised LER provided details of the licensee final root cause determination for the June 27, 2005, transformer failure and reactor trip. The failure was due to a void in wood used in the transformer. The void allowed an arc that initiated an internal failure of the transformer. No performance deficiency was identified. The event was also discussed in NRC Inspection Report 05000250/2005011 AND 05000251/2005011. The LER is closed.

.2 (Closed) LER 05000251/2005006, Manual Reactor Trip due to Rod Control Urgent Failure Alarm

The LER provided details of a November 11, 2005, manual reactor trip that was inserted when a rod control failure occurred during preparations for reactor startup. A failed relay in the rod control circuitry was identified during licensee troubleshooting after the event. The inspector reviewed work order WO 35028390 which was used to replace the failed relay and condition report CR 2005-31103 which described the licensee's review of the event. The licensee intended to improve preventive maintenance procedures to prevent similar failures. No performance deficiency was identified by the inspectors and the LER is closed.

4OA6 Exit

.1 Exit Meeting Summary

The resident inspectors presented the inspection results to Mr. Jones and other members of licensee management at the conclusion of the inspection on April 20,

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2006. The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. The licensee did not identify any proprietary information.

On February 10, 2006, the inspectors discussed results of the onsite radiation protection inspection with Mr. K. O'Hare, Safety Manager, and other responsible staff. The inspectors noted that proprietary information was reviewed during the course of the inspection but would not be included in the documented report.

An additional telephone exit was conducted on March 1, 2006, to discuss data provided to address unresolved items associated with representative sampling of particulate effluents in the main plant vent and with training provided to maintenance/I&C personnel conducting radiation monitor calibrations which were previously identified during the February 10, 2006 exit. The inspectors noted that from review of additional data provided, a green NCV was identified for failure to maintain QC activities needed to maintain representative sampling of particulates in the main plant vent. In addition, all issues associated with training concerns were resolved.

40A7 Licensee Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which met the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for disposition as a non-cited violation (NCV).

- Technical Specification 6.8.1.e requires written procedures to be established, implemented, and maintained covering the quality control program for effluent monitoring using the guidance in NRC Regulatory Guide 1.21. The regulatory guide references ANSI N13.1-1969 as an acceptable standard including general principles and guidance for representative sampling of particulates in airborne effluent streams. Offsite Dose Calculation Manual Table 3.2-1 requires particulate samples to be collected from the condenser air ejector vent pathways during Modes 1 through 4 when primary to secondary leakage is detected and also from the Unit 3 spent fuel pool vent release pathway at all times. Contrary to the above, licensee evaluation of the applicable condenser air ejector and Unit 3 spent fuel pool SPING sampling systems design and/or operating characteristics did not allow for representative sampling of particulates for their respective airborne effluent streams. Further, the licensee had not established adequate design/guidance for backup sampling systems to maintain representative sampling of particulates for the referenced pathways when the primary sampling systems were declared out of service. These issues are documented in the licensee's corrective actions program as CR 2006-3541, CR 2006-2197, and CR 2005-16396. Although these collective

events involved the failure to maintain conditions for representative sampling for particulates in selected airborne effluent pathways, the finding is of very low safety significance because there have been no operational occurrences nor activities which would have resulted in the release of particulates from areas vented through these monitored pathways or would have resulted in changes to offsite dose results. Review of recent radiological effluent monitoring air-sampling data corroborated the lack of any offsite consequences.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

D. Poirier, Maintenance Manager
W. Pravat, Work Controls Manager
S. Greenlee, Engineering Manager
D. Hoffman, Operations Superintendent
T. Jones, Site Vice-President
M. Navin, Operations Manager
K O'Hare, Radiation Protection and Safety Manager
W. Parker, Licensing Manager
M. Pearce, Plant General Manager
B. Webster, Senior Vice President, Operations

NRC personnel:

C. Casto, Director Division of Reactor Projects, Region II
B. Desai, Acting Projects Branch Chief, Region II
F. Ehrhardt, Operations Engineer, Region II
V. McCree, Director, Division of Reactor Safety, Region II
J. Munday, Projects Branch Chief, Region II
L. Plisco, Deputy Regional Administrator, Region II
W. Travers, Region II Administrator

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000250/2006002-02 URI Failure of MOV-3-744B to open when demanded on March 7, 2006. (Section 1R20)

05000250/2006002-03 URI Loss of Unit 3 decay heat removal on March 8, 2006. (Section 1R20)

Open and Closed

05000250, 251/
2006002-01

NCV Failure to ensure emergency operating procedure step is usable. (Section 1R11)

05000250, 251/
200602-04

NCV Failure to install jumpers during maintenance results in diesel inoperability. (Section 1R20)

05000251/2006002-05

FIN Human performance error results in a secondary plant transient. (Section 1R22)

05000250, 251/
2006002-06 NCV Failure to implement adequate quality controls to ensure representative sampling for particulates in the Plant Vent SPING (Section 2PS1)

Closed

0500251/2005002-01 LER Revised Automatic Reactor Trip due to Turkey Point Unit 4 Transformer Failure. (Section 40A3)

05000251/2005006 LER Manual Reactor Trip due to Rod Control Urgent Failure Alarm. (Section 40A3)

LIST OF DOCUMENTS REVIEWED

Section 1R08: Inservice Inspection Activities

Nondestructive Examination

Fourth Interval Inservice Inspection Plan and Schedule, February 22, 2004
Fourth Interval Inservice Inspection Program, February 22, 2004
 NDE-2.2, Magnetic Particle Examination, Rev. 10
 NDE-3.3, Liquid Penetrant Examination Solvent Removable Visible Dye Technique, Rev. 9
 NDE-5.2, Ultrasonic Examination of Ferritic Piping Welds, Rev. 13
 NDE-5.4, Ultrasonic Examination of Austenitic Piping Welds. Rev. 17

Other Documents

0-ADM-537 Boric Acid Corrosion Control Program, 6/16/03C
 0-OSP-041.26, Containment Visual Leak Inspection, 5/14/05
 0-OSP-045.1, ASME Section XI Quality Group A Bolting Examination, 12/1/05
 0-OSP-045.2, ASME Section XI Quality Group B and Group C Bolted Connection Examination, 12/1/05
 PTN-ENG-SESJ-05-001, Rev, 0, Degradation Assessment for Turkey Point Units 3 and 4 Steam Generators, Update for the Turkey Point Unit 4 End-of-Cycle 21 Refueling Outage
 Turkey Point Units 3 & 4, Steam Generator Secondary Side Integrity Plan, Rev. 6

Corrective Action Documents

2004-12946, Dry Boric Acid on RX vessel bottom insulation
 2004-9816, ASME Section XI system pressure test of 3-50-321
 2004-10252, Spring can SR-251 setting is out of tolerance
 2004-11026, Visual indications in 3C steam generator channel head cladding
 2004-11886, Work request are not always generated for boric acid leaks even

though the CR has been written
2004-104038, Unit 3 seal table leakage - wet boric acid identified at J-12 and F-4 locations
2004-10796, Summary of loose parts found in 3C SG during FOSAR inspection
2004-10663, Summary of loose parts found during FOSAR on 3A SG
2004-10287, Loose parts in 3B SG
2004-12917, Unit 3 containment moisture barrier
2005-11430, Unisolable leak in U-3 SFP cooling piping from weld on downstream side of 3-820
2005-4859, Active boric acid leak on CV-3-956D
2005-20916, Valve 4-285B seal injection to RCP B test connection isolation valve has wet boric acid
2005-6129, Surface indications on replacement reactor vessel closure head
2006-6384, DBA at bolted connection of FE-3-608, flow element in RHR cross connection line hot-leg to cold-leg
2006-7243, Reactor sump inspection
2006-7353, Coatings failure and corrosion in the North and South recirculation and reactor vessel drain sumps

Section 1EP2: Alert and Notification System Testing

Plans and Procedures

Siren System Availability Test Procedure No. 6.80.01-H, 02/05/2004
Siren Maintenance Procedure No. 6.80.02-D, 02/20/2002

Records and Data

Documentation of periodic siren tests, 01/01/2004 - 12/31/2005

Section 1EP3: Emergency Response Organization (ERO) Augmentation

Procedures

0-EPIP-20104, Emergency Response Organization Notifications/Staff Augmentation, 01/18/2006
Turkey Point Plant Emergency Response Directory, 12/31/2005

Records and Data

Documentation and Critique Report of Off-Hour ERO Response Drill conducted on 12/17/2004
Quarterly ERO Communications Drills, 06/30/2004, 04/05/2005, 08/11/2005

Section 1EP4: Emergency Action Level (EAL) and Emergency Plan Changes

Plans and Procedures

REP Revisions 43 (implemented 10/26/2005) and 44 (implemented 01/18/2006)
0-EPIP-20101, Duties of Emergency Coordinator, 12/21/2005 (implemented 01/18/2006)

Records and Data

50.59 Applicability Determination/Screen for REP Revs. 43 and 44
50.54(q) Screening Criteria Form for REP Revs. 43 and 44
Documentation of concurrence in REP Rev. 44 changes and annual review of EALs with
offsite agencies (conducted during Task Force meeting on 12/02/2005)

Section 1EP5: Correction of Emergency Preparedness Weaknesses and Deficiencies

Plans and Procedures

NAP-204, Condition Reporting, Rev. 6

Audits and Self-Assessments

QAO-PTN-04-002, Emergency Preparedness Functional Area Audit, 03/18/2004
QAO-PTN-05-002, Emergency Preparedness Functional Area Audit, 04/04/2005
Emergency Preparedness Self-Assessment No. EP 04-01 (CR 2004-13132)
Quick-Hit Self-Assessment Report (CR 2005-34913)

Records and Data

Documentation (Control Room log/event time line/critique report/CR) of NOUE declarations
on 09/02/2004, 09/24/2004, 02/08/2005, 06/27/2005, 08/24/2005, 09/19/2005,
10/22/2005, 10/25/2005, 10/31/2005

Condition Reports (CRs)

CR 2004-195, Documents governing the use of potassium iodide at Turkey Point do not
provide sufficient detail
CR 2004-254, Some ERO responders filling roles more technical in nature and not part of the
responder's daily responsibilities have indicated a need for additional training to maintain
proficiency
CR 2004-3111, Failure to classify a General Emergency using EPIP-20101 during the 2004
second quarter emergency drill
CR 2005-11248, Investigate adverse trend in the DEP Performance Indicator
CR 2005-12095, Missed classifications and notifications associated with simulator emergency
plan training
CR 2005-16182, During regularly scheduled testing, siren no. 39 was found to be unavailable
on 05/31/2005
CR 2005-22320, Staffing shortage in Radiation Protection Technician positions during
08/11/2005 ERO communications drill
CR 2005-24126, During the third quarter ERO drill, the Operational Support Center failed to
dispatch teams to the field in a timely manner

CR 2005-28278, Dose assessment input error in the Class A software program resulted in an unplanned, inaccurate upgrade in the Protective Action Recommendation during the 10/14/2005 ERO drill

CR 2006-2174, Incorrect revision of NEI 99-02 referenced in plant procedures

Section 1R11: Licensed Operator Regualification Program

Lesson Package No. 750003300, Pressurizer Steam Space LOCA / Loss of Emergency Coolant Recirculation, 2/10/06

Lesson Package No. 750004300, Steam Generator Tube Rupture / Loss of Offsite Power, 2/10/06

Job Performance Measure 01 046 007 103/SEQ023D, Borate the RCS Via the Blender 2/7/06

Job Performance Measure 01 200 011 301/SEQ142B, Respond to Evacuation Conditions - Unit 3 RO, 2/3/06

Condition Report 2006-4318, Simulator Malfunction During Annual LOCT Exam

Condition Report 2006-4423, Simulator Confidence Alarm Occurred Due to Task Overrun

Condition Report 2004-2498, Incorporation of Human Error Reduction tools required by NAP-402 results in significant change to Operator response times during performance of Emergency Operating Procedures

Resource Action Request 0501017-O-03, Blanket TSAR for 2005 LOCT

Licensee Event Report 50-250/2005-001-00, Mode Increase While in Technical Specification Shutdown Action Statement

Simulator/Plant Differences List, 4Q05

Differences Between Unit 3 and Unit 4 Control Room Systems, 1/9/06

ERDADS Simulator Exceptions, 4Q05

Crew Simulator Evaluation Form, Shift 4 Crew B, 2/14/06

Individual Simulator Evaluation Form, 4 Operators, 2/14/06

Operations Continuing Training Feedback Summary, 2/10/06

Training Review Committee Meeting Minutes, 2nd Quarter, 6/23/05

Plant Training Advisory Board Meeting Minutes, 2nd Quarter 2005, 6/30/05

Plant Training Advisory Board Meeting Minutes, 3rd Quarter 2005, 9/15/05

Plant Training Advisory Board Meeting Minutes, 4th Quarter 2005, 11/30/05

0-ADM-317, Conduct of On-the-Job Training (OJT) and Task Performance Evaluation (TPE), 10/14/04

Nuclear Training Department Administrative Guideline 005, Conduct of Simulator Training, 11/0/05

3-EOP-FR-P.1, Response to Imminent Pressurized Thermal Shock Condition, 12/19/05

BD-EOP-FR-P.1, Basis Document for EOP-FR-P.1, Response to Imminent Pressurized Thermal Shock Condition, 12/10/05

3-EOP-E-3, Steam Generator Tube Rupture, 4/30/02

BD-EOP-E-3, Basis Document for EOP-E-3, Steam Generator Tube Rupture, 4/30/02

NAP-408, License Maintenance and Activation Program. Revision 2, 8/23/05

Remedial Training Records:

Inspectors reviewed six remedial training records.

Written Exams Reviewed:

Inspectors reviewed three written exams that were administered for the biennial requalification exams.

Simulator Performance Testing:

Turkey Point Simulator Certification Test Procedure TRN-001, Rev. 1, Manual Reactor Trip, 11/23/05

Turkey Point Simulator Certification Test Procedure TRN-003, Rev. 1, Simultaneous Closure of All MSIV's, 11/29/05

Section 2OS1: Access Controls to Radiologically Significant Areas

Procedures, Manuals, and Guidance Documents

QA 1000, Inter-Office Correspondence, Basis for Using Plant Parameter Readings to Estimate Radioactive Airborne Concentrations in Containment, 08/03/05

0-Administrative Procedure (ADM)-604, Radiological Protection Guidelines and Practices, 02/04/04

0-ADM-605, Control of Radioactive Tools, Equipment and Components, 05/17/05

0-Health Physics Administrative Procedure (HPA)-001, Radiation Work Permit Initiation and Termination, 02/15/05

0-HPA-021, Radiation Protection Restricted Area Key Control, 02/15/05

0-HPA-030, Personnel Monitoring of External Dose, 04/11/05

0-HPA-031.2, Multibadging Exposure Monitoring, 06/11/02

0-HPA - 072, Installation, Control, and Removal of Permanent and Temporary Shielding, 04/07/03C

0-Health Physics Surveillance Procedure (HPS)-025.1, General Posting Requirements for Radiological Hazards, 11/09/05

0-HPS-025.2, Posting and Survey Requirements for Fuel Movement, 08/16/05

0-HPS-031.1, Whole Body Dosimetry Issue, 09/19/03C

0-HPS-106, Survey and Posting Guidelines for Plant Evolutions, 04/08/05

Nuclear Administrative Procedure (NAP), Condition Reporting, Revision (Rev.) 6

Radiation Work Permit (RWP) 2006-0304, Unit 3 Containment - Power Entry (Locked High Radiation Area (LHRA)), Unit 3B RCP Standpipe Modification Activities Including Fill and Support Work, 01/01/06

RWP 2006-1026, Unit 4 Spent Fuel Pit, Setup and Decon of Transfer Canal in Support of Unit 4 Transfer Canal Wall Modifications, 01/31/06

RWP 2005-0300, Unit 3 Containment - Power Entry, Very High Radiation Area/Locked High Radiation Area (VHRA/LHRA), Inspect/Troubleshoot Valves and Components Including Support Work, 01/01/05

RWP 2005-0301, Radiation Controlled Area, Job Specific RWP for Unit 3 Containment Hatch Test, 01/01/05

RWP 2005-0303, Unit 3 Containment - Power Entry LHRA/VHRA, Unit 3B RCP Standpipe Modification Activities Including Fill and Support Work, 03/02/05

RWP 2005-0304, Unit 3 Containment - Power Entry LHRA/VHRA, Inspect Clean Boric Acid from Valves and Components Including Support Work, 01/01/05

RWP 2005-0306, Unit 3 Containment - Power Entry LHRA/VHRA, Troubleshoot/Repair flux Map Detectors Including Support Work , 01/01/2005

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- RWP 2005-0400, Unit 4 Containment - Power Entry, VHRA/LHRA, Inspect/Troubleshoot Valves and Components Including Support Work, 01/01/05
- RWP 2005-0401, Radiation Controlled Area, Job Specific RWP for Unit 4 Containment Hatch Test, 01/01/05
- RWP 2005-0402, Unit 4 Containment - Power Entry LHRA/VHRA, Unit 4 'A' Steam Generator Blowdown Sample Line Leak Repair (Furmanite) Including Support Work, 06/17/2005
- RWP 2005-0406, Unit 4 Containment - Power Entry LHRA/VHRA, Troubleshoot/Repair flux Map Detectors Including Support Work , 01/01/2005

Records and Data

- Deep Dose Equivalent (DDE) Data, June 1, 2005 through January 01, 2006, for the following RWPs: RWP 2005-0300, RWP 2005-0301, RWP 2005-303, RWP 2005-00304; RWP 2005-0306; RWP 2005-0401; RWP 2005-0402; RWP 2005-0406
- DDE Data, January 1, 2006 through February 07, 2006, for the following RWPs: RWP 2006-0300; RWP 2006-0301; RWP 2006-0302; RWP 2006-304; RWP 2006-400; RWP 2006-0401; RWP 2006-0402; RWP 2006- 0403
- HP Restricted Area Key Issue Log Data, February 02 - 07, 2006
- HP-61, Air Calculation Sheet & HP-95, Air Submersion SDE Calculation Worksheet, and Supporting Quantitative Radionuclide Analyses for Containment 'At Power' Entries conducted 12/21/05 (Unit 3 Containment); 11/17/05 (Unit 4 Containment); and 10/17/05 (Unit 3 Containment).
- Radiation Survey Log Number (No.) 06-613, Unit 4 Spent Fuel Pit Canal/Transfer Card, Post Decon/Washdown Survey, 02/07/06
- Radiation Survey Log No. 2002-3225, Unit 3 Residual Heat Removal Equipment, 06/06/02
- Radiation Survey Log No. 2002-4543, Unit 3 Residual Heat Removal Equipment, 08/23/02
- Permanent Shielding Request Form (PSR) No. 03-16, 03/30/04

Corrective Action Program (CAP) Documents

- Quality Assurance Audit QAO-PTN-05-003, Radiation Protection Functional Area Audit, 04/04/05
- Self-Assessment Number (No.) 04-01, INPO SEN-240 - Unplanned Radiation Exposure Dose Control, dated 05/13/04
- Quick Hit Self Assessments Plan and Reports Including:
 - Response to Personnel Contamination Monitor Alarms, 02/09/04
 - Restricted Area Key Control, 03/19/04
 - Locked High Radiation Area Controls, 03/24/04
 - Temporary Shielding Documentation, 01/31/05
 - High Radiation Area Postings and Swing Gates, 03/25/05
 - Personnel Contaminations During the Unit 4 Outage, 06/02/05
- Condition Report (CR) Data Base Entries for Radiological Dosimetry Alarms, 01/01/04 - 12/01/05
- CR Data Base Entries for Radiological Control, 01/01/04-12/01/2005
- CR Data Base Entries for HRA Controls, 01/01/04 - 12/01/2005
- Personnel Contamination Report Data, 04/05/05 - 05/31/2005
- Condition Report (CR) 2005-11985, Inventory of Radwaste Material in Trash Baskets in PTN Spent Fuel Pools, 04/22/05

CR 2005-16456, Radiation Worker Received Dose Rate Alarm, 06/03/05
CR 2005-15774, During Radioactive Filter Transfer, Individual Exceeded RWP Maximum Allowed Dose Rate, 05/25/05
CR 2005-13164, Worker Received Dose Rate Alarm While Welding, 05/03/05

Section 2OS3: Radiation Monitoring Instrumentation and Protective Equipment

Procedures

0-ADM-041 PTN Respiratory Protection Plan, 11/15/05
0-BD-HPS-063.4 Selection and Issue of Respiratory Protection Equipment, 12/3/01
0-HPS-063.4 Selection and Issue of Respiratory Protection Equipment, 08/2/05
0-BD-HPT-016.10 Calibration and Operation of the NNC Gamma 60 Portal Monitor, 09/21/05
0-HPT-016.10 Calibration and Operation of the NNC Gamma 60 Portal Monitor, 10/25/02
0-BD-HPT-016.11 Calibration and Operation of the SAM-9(A), 09/21/05
0-HPT-016.11 Calibration and Operation of the SAM-9(A), 09/26/02
0-BD-HPT-013.3 Calibration and Operation of the Eberline Beta Air Monitoring System Model AMS-3(A)/AMS-4, 09/21/05
0-HPT-013.3 Calibration and Operation of the Eberline Beta Air Monitoring System Model AMS-3(A)/AMS-4, 06/29/04
0-BD-HPT-013 Portable Survey Instruments, 08/27/01
0-HPT-013 Portable Survey Instruments, 08/27/01
0-BD-HPT-014.6 Calibration and Maintenance of the Health Physics Whole Body Counting Equipment, 06/1/99
0-HPT-014.6 Calibration and Operation of the Health Physics Whole Body Counting Equipment, 09/24/01
0-BD-HPT-016.1 Calibration and Operation of the Eberline Model PCM-1B Personnel Contamination Monitor, 09/21/05
0-HPT-016.1 Calibration and Operation of the Eberline Model PCM-1B Personnel Contamination Monitor, 7/23/02
0-BD-PMI-066.2 Area Radiation Monitoring System Channel Calibration, 01/23/01
0-PMI-066.2 Area Radiation Monitoring System Channel Calibration, 05/31/05C
0-BD-HPA-010 Health Physics Instrument Plan, 09/28/01
0-HPA-010 Health Physics Instrument Plan, 09/28/01
0-BD-HPS-062.2 Use of the Self-Contained Breathing Apparatus, 09/21/05
0-HPS-062.2 Use of the Self-Contained Breathing Apparatus, 11/21/05
0-BD-HPT-018 Calibration of Survey Instruments, 03/21/01
0-HPT-018 Calibration of Survey Instruments, 03/16/04
0-BD-HPT-061.7 Breathing Air Quality Analysis, 11/02/99
0-HPT-061.7 Breathing Air Quality Analysis, 11/02/99
0-BD-HPT-011.9 Operation of the Radcal Model 1515 Radiation Monitor, 09/21/05
0-HPT-011.9 Operation of the Radcal Model 1515 Radiation Monitor, 09/18/98
0-BD-SMM-101.1 Grade D Breathing Air and Instrument Air Periodic Testing, 11/5/01
0-SMM-101.1 Grade D Breathing Air and Instrument Air Periodic Testing, 06/09/98C
0-HPS-063.2 Maintenance and Accountability of Respiratory Protection Equipment, 1/21/05
0-BD-HPS-063.2 Maintenance and Accountability of Respiratory Protection Equipment, 03/22/01

- 3-BD-PMI-067.7 Process Radiation Monitoring System Channel R-3-20 Calibration Procedure, 07/07/00
- 3-PMI-067.7 Process Radiation Monitoring System Channel R-3-20 Calibration Procedure, 08/26/04
- 4-PMI-066.3 Containment HI Range Radiation Monitoring System Channels 6311A/B Calibration, 04/27/05C
- 4-BD-PMI-066.3 Containment HI Range Radiation Monitoring System Channels 6311A/B Calibration, 12/11/00
- 0-HPT-016.13 Calibration & Operation of the Eberline PCM-2 Personnel Contamination Monitor, 06/7/04
- 0-HPT-016.14 Calibration & Operation of the Thermo-Eberline PM-7 Portal Monitor, 06/07/04
- 0-HPT-012.1 Calibration and Operation of RO-20, RO-2 and RO-2A, 03/05/04
- HPDI 05-003 Calibration of PCM-7 Portal Monitor using Windows based calibration software, 06/22/05
- 3-NCZP-094.3 Obtaining a Unit 3 PASS RHR Sample During Non-Emergency Conditions, 10/10/04
- 3-NCZP-094.2 Obtaining a Unit 3 PASS RCS Sample During Non-Emergency Conditions, 10/10/04
- 3-NCZP-094.1 Obtaining a Unit 3 PASS RHR Sample During Emergency Conditions, 10/10/04
- 3-NCZP-051.1 Obtaining a Containment Air Sample During Emergency Conditions, 10/10/04
- 3-NCZP-051.2 Obtaining a Containment Air Sample During Non- Emergency Conditions, 10/10/04

Calibrations, Surveillance Tests, and Licensee Records

- Job Performance Measure, Area Radiation Monitoring System Calibration, 04/24/91
- Instrument and Controls Qualification Matrix, 08/28/03
- Form HP-7 Radiation Detection Instrument Calibration and Maintenance Record, S/N: 5545, 02/08/06
- WBC Calibration Daily Checks 02/08/06
- WBC Yearly Calibration (fastscan unit), 09/28/05
- WBC Yearly Calibration (chair unit), 09/29/05
- PTN Nuclear Training Department Attendance Rosters, ARMS Refresher, dated 05/11/04, and 06/08/04
- Inter-Office Correspondence memo (Subject: Reporting lost QA record pursuant to QI 17-PTN-1) , 04/23/02
- 10 CFR Part 50/61 Analysis Report (Laboratory Sample No. Z22658 pages 1 and 2), dated 10/31/04
- 2006 Emergency Response Organization Teams, 02/06/06
- Form HP-93.6 Air Quality Certificate, 08/01/05
- PTN Respiratory Qualifications List (Current Computer Print Out), 02/07/06
- Breathing Air/Gas Certificate CGA E (G-7.1, 97') (for Homestead Air Force Base Stationary Unit), 10/15/04, 02/11/05 and 10/20/05
- Form HP-7C PCM-1B / PCM-2 Daily Operational Check, dated 2/8/06
- Form HP-7D.1 PCM-2 Calibration Records, dated 5/4/05, 11/8/05, 4/27/05, 10/28/05, 5/3/05 and 11/2/05

Form HP-7:35 PM-7 Calibration Report, dated 1/13/05, 7/12/05, 12/22/04, 6/22/05, 2/18/05, 08/15/05, 03/03/05, 09/01/05, 03/17/05, 09/15/05, 04/19/05, 11/3/05, and 05/04/05
Form HP-7:5.1 SAM-9 Daily Source Check Record, 02/08/06
Form HP-7:5 SAM-9 Calibration Data Sheets, 12/01/05 and 06/01/05
Form HP-93.1 SCBA Air Bottle Inspection Record, not dated
Form HP-25 DMC-2000 Calibration Records, 7/19/06 and 08/02/06
TS Cal Rad-4-6311 A/B IAW 4-PMI-066.3, 10/22/03
TS Cal Rad-4-6311 A/B IAW 4-PMI-066.3, 05/21/05
OTSC No. 0391-03 Request for on the spot change, 10/16/03
ARMS RD-1420 Calibration of Control Room Area Radiation Monitor, dated 05/10/05
ARMS RD-3-1421 Calibration of Spent Fuel Pool Area Radiation Monitor, dated 06/12/05
CHRMS RD-1404, RD-1405, RD-1406 Calibration of Containment High Radiation Area Radiation Monitor, 10/18/03
A-37515, Rev. A, Report of Primary Calibration, Process Radiation Monitor, MW-2P Liquid Sampler and MD-5D Gamma Scintillation Detector, 07/12/04
ARMS RD-3-20 Calibrations of Radiation Detector for RCS Let Down Line, 04/16/04 and 10/19/05
Administrative Correction Form for O-HPS-063.2, 02/08/06
Form HP-90 SCBA Inventory, Inspection and Repair Record, for Regulator Nos.:
89200074-89200105, 89200107, 89200109, 89200110, 89200113, 89200117,
89200146-89200150, 89200226, 89200231, 89200239, 89200240-89200257, 89200260,
89200266, 89200294, 89200305-89200306
ASP-1 / NRD Calibration Certificate (By Thermo Electron Corporation) Inst. S/N: 1040
HPI-614, 07/08/05
ASP-1 / NRD Calibration Certificate (By Thermo Electron Corporation) Inst. S/N: 1610
HPI-755, 10/19/05
Scott Presur-Pak 50 SCBA Video Training (MS Windows Media Video File)
Student Lab Exercise Guide No. 3308006 SCBA Training, 02/21/05
Student Lab Exercise Guide No. 3308006 SCBA Training Page 8 (Verification of Satisfactory Completion of Lab Exercise [B]), 07/22/03

Condition Reports (CRs)

2006-3651 Work on plant equipment by personnel without documented qualifications
2004-4916 Incorrect wiring of SPING detector pump
2005-33771 Multiple Breathing Air Procedures Evaluation/possible integration
2006-3806 Failure to maintain SCBA Surveillance Records
2004-13320 Respirator Fit Test Success Rate Impacted by faulty valves
2004-9519 Response Check of 3 HP portable instruments not completed
2004-12341 60,000 CPM background at reactor vessel head leak detector RAD-6458
2005-11952 Instruments found in containment not source checked

Section 2PS1: Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

Procedures, Guidance Documents, and Reports
Annual Radioactive Effluent Release Report, 2003
Annual Radioactive Effluent Release Report, 2004

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Offsite Dose Calculation Manual, Rev. 13
0-NCZP-051.3, Obtaining Plant Effluent Samples Via the SPING Monitors During Non-Accident Conditions, 11/16/05C
0-NCOP-067, Process Radiation Monitors Setpoint Determination, 9/28/05
0-NCCP-210, SPING and DAM Monitor Channel Checks, 6/28/05
0-NCOP-003, Preparation of Liquid Release Permits, 5/13/05
0-OP-061.11, Waste Disposal System Controlled Radiological Liquid Release, 4/2/04C1
0-NCAP-216, Radiochemistry Quality Control Samples, 5/17/01C
0-NCZP-046.4, Obtaining Reactor Coolant Demineralizer Sample, 9/22/03
0-NCZP-046.2, Monitor Tank Sampling, 10/7/04
0-NCZP-061.2, Gas Space Sampling, 5/13/05
4-PMI-067.1, Process Radiation Monitoring System Channel R-4-11 and R-4-12 Calibration Procedure, 10/4/05
PTN-ENG-SENS-05-049, Engineering Evaluation for Temporary Suspension of Continuous Monitoring Via the Plant Vent and Unit 3 Spent Fuel Pool Vent SPINGS for the performance of Required Maintenance, Rev. 1, 9/6/05
Report of Primary Calibration for R-18 and R-19, 7/12/04
Report of Primary Calibration for R-15, 9/22/04
Report of Primary Calibration for R-14, 9/22/04
Primary Calibration Report for Moving-Filter Particulate Detector R-11, 9/21/92
Primary Calibration Report for Offline Beta Detector R-12, 6/22/86
R-11 Transfer Calibration, 5/12/92
R-12 Transfer Calibration, 5/15/92

Records, Data, and Drawings

Liquid Release Permit (LRP) 50141, Monitor Tank B, 12/2/05
LRP 50142, Monitor Tank A, 12/6/05
LRP 50143, Monitor Tank B, 12/7/05
LRP 50144, Monitor Tank B, 12/12/05
LRP 60001, Monitor Tank A, 1/02/06
LRP 60004, Monitor Tank B, 1/05/06
LRP 60010, Monitor Tank A, 1/16/06
LRP 60024, Monitor Tank A, 2/8/06
Gas Release Permit GRP-05-38, Gas Decay Tank E, 12/10/05
GRP-05-40, Gas Decay Tank C, 12/16/05
Work Order (WO) 33020932-02, PMT Plant Vent Gas Monitor R-14 Calibration (0-PMI-067.2), 4/30/04
WO 35025337-01, PMT Plant Vent Gas Monitor R-14 Calibration (0-PMI-067.2), 11/10/05
WO 33023650-01, PM and Calibration on RAD-3-6418 (0-PMI-067.9), 8/9/04
WO 32011009-01, PM and Calibration on RAD-3-6418 (0-PMI-067.9), 12/17/02
WO 33023508-01, Calibration of Liquid Waste Monitor R-18 (0-PMI-067.5), 1/9/06
WO 32001077-01, Calibration of Plant Vent SPING RAD-6304 (0-PMI-067.9), 6/17/02
WO 33011228-01, Calibration of Plant Vent SPING RAD-6304 (0-PMI-067.9), 1/15/04
WO 34017601-01, Radiation Detector for Containment Air Monitor R-4-11 and R-4-12 Calibration (4-PMI-067.1), 12/9/04
WO 33000452-01, Radiation Detector for Containment Air Monitor R-4-11 and R-4-12 Calibration (4-PMI-067.1), 6/5/03

0-OSP-025.2, Control Room Emergency Ventilation System Filter Performance Test (3/17/05, 9/18/03)
0-OSP-025.3, Control Room Emergency Ventilation Filter Charcoal Sample Analysis (4/8/05, 10/13/03)
3-OSP-056.2, Emergency Containment Filter System Performance Test, 11/16/03
4-OSP-056.2, Emergency Containment Filter System Performance Test, 5/31/05
3-OSP-056.3, Emergency Containment Filter Charcoal Samples, 10/2/04
4-OSP-056.3, Emergency Containment Filter Charcoal Samples, 4/19/05
Technical Specification Related Equipment and Risk Significant S.S.C Out-of-Service Logbook, September 1, 2005 - September 30, 2005
0-NCCP-210, Attachment 1, SPING and DAM Monitor Channel Check Log, September 1, 2005 - September 30, 2005
On the Spot Change (OSTC) No. 0180-03, Process Radiation Monitoring System R-4-11 and R-4-12 Calibration: Tc-99 source 92-122 was found leaking during procedure execution and cannot be used. Change calibration data sheet to substitute source 92-1502.
OTSC No. 0399-04, Process Radiation Monitoring System R-4-11 and R-4-12 Calibration: Correct minor deficiencies in procedure, change source used for high range on R-4-11 due to original source leaking.
10CFR50.59 Applicability Determination, Vendor Provided Liquid Radwaste Skid-Mounted Equipment Screening, 1/30/06
Quarterly Radioactive Effluent Release Report, Fourth Quarter 2005
Quality Control (QC) Control Charts for HPGe detectors No. 1, 2, and 3, 11/10/05-2/7/06
QC and Calibration Data for Packard LSC, 5/5/04-2/6/06 and TriCarb LSC, 8/30/04-2/5/06
Ludlum alpha/beta counter calibration data (1/10/06, 1/28/05)
HPGe No. 3 calibration data: 1 liter liquid marinelli (9/30/05), wide mouth liter poly bottle (8/22/05), stainless steel planchette (8/22/05), CP100 charcoal cartridge (8/22/05), and 130 gram gas beaker (8/22/05)
Drawing No. 5610—3026, Radwaste Building Ventilation HVAC System, Rev. 3

CAP Documents/Audits

Quality Assurance Audit QAO-PTN-04-004, Chemistry and Effluents Functional Area Audit, June 17, 2004
Focused Self-Assessment Report, Radiochemistry Analysis, 1/06
CR 2004-8058, Total volumetric air flow readings less than acceptance criteria during PT 0-OSP-025.2, Control Room Emergency Ventilation System, 3/18/05
CR 2004-253, Requirement for plant vent sampling to be done isokinetic is not being met, 2/26/04
CR 2004-4226, Sb-125 is 63% of the curies released in radioactive liquid effluents, 7/15/04
CR 2005-22700, No means to implement alternate sampling for iodine and particulate sampling during calibration of PV SPING, 8/17/05
CR 2004-8944, Identify and replace aging PRMS check sources, 9/24/04
CR 2005-11953, Hard elbow in RAD-6304 PV SPING not in conformance with ANSI N13.1-1969 as required by NUREG-0737, 4/22/05
CR 2004-255, During the NRC pre-exit meeting, NRC inspection cited an unresolved concern with respect to source traceability to original instrument calibration, 2/27/04
CR 2005-16396, SJAЕ SPING Sample Collection Requirements, 06/03/2005

- CR 2006-2197, Evaluate Unit 3 SFP SPING Iodine and Particulate Sampling Flowrate meets isokinetic sampling requirements, 01/26/06
- CR 2006-3454, Unit 3 SFP SPING Sample Flow Rate Insufficient to Pull Weekly Gas and Tritium Sample, 02/07/06
- CR 2006-3541, Excessive Hose length Used to Connect Unit 3 SFP SPING Alternate Sampling Rig, 02/07/06
- CR 2006-3589, Unit 3 SFP SPING MOV flush valve V-2 did not cycle fully closed, 02/07/06
- CR 2006-3590, Unit 3 SFP SPING Potentially Inoperable Due to Monitor Purge Valve, 02/07/06
- CR 2006-3220, Ratio of sample to stack flow is questioned, 02/07/06

Section: 2PS3 Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program

Procedures, Manuals, and Guidance Documents

- Turkey Point Unit 3 & 4 Offsite Dose Calculation Manual, Rev. 13,
- NAP-204, Condition Reporting, Rev. 6,
- 0-HPA-002, Site Radiological 10 CFR 50.75(g) Assessment, 01/10/06
- Florida Department of Health (FL DOH) Environmental Radiation Control Procedure SP-1, Collection of Air Particulates and Radioiodines, Rev. 7
- FL DOH Environmental Radiation Control Procedure SP-4, Collection of Surface Water, Rev. 4
- FL DOH Environmental Radiation Control Procedure SP-5, Collection of Broadleaf Vegetation, Rev. 2
- FL DOH Environmental Radiation Control Procedure SP-12, Annual Land Use Census, Rev. 2
- FL DOH Environmental Radiation Control Procedure, Quality Procedure A, Radiological Environmental Monitoring Program, Rev. 1
- FL DOH Environmental Radiation Control Procedure, Quality Procedure C, Intralaboratory Quality Control, Rev. 0,
- FL DOH Environmental Radiation Control Procedure, Quality Procedure D, Interlaboratory Quality Control, Rev. 0,
- FL DOH Environmental Radiation Control Procedure, Quality Procedure E, Data Reporting, Rev. 0
- FL DOH Environmental Radiation Control Procedure, Technical Memorandum 2, Lower Limit of Detection, Rev. 5
- Drawing Number 5610—3061, Waste Disposal System Liquid Waste Monitor Tanks, Sheet 8, Rev 9; and Sheet 4, Rev. 7
- Drawing Number 5613—3010, Circulating Water System, Sheet 1, Rev. 16

Records and Data

- 2005 REMP Self-Assessment
- Air Pump Calibration Data for First Half of CY 2005
- Environmental Radiation Control, Nuclear Power Plant Surveillance Program, Semi-Annual Self-Assessment, September 2004
- Environmental Radiation Control, Nuclear Power Plant Surveillance Program, Semi-Annual Self-Assessment, March 2005

Environmental Radiation Control, Nuclear Power Plant Surveillance Program, Semi-Annual Self-Assessment, September 2005
Quality Assurance Audit Report, Radiological Environmental Monitoring Program and Site Non-Radiological Environmental Protection Plans Functional Area Audit, Audit No. QAS-ENV-05-1, 7/25/05
2003 Annual Radiological Environmental Operating Report Turkey Point Plant - Units 3 & 4
2004 Annual Radiological Environmental Operating Report Turkey Point Plant - Units 3 & 4
Turkey Point Joint Frequency Distribution Report, 2004
Turkey Point Joint Frequency Distribution Report, 2005
Semi-Annual Meteorological Tower Tests, dated 6/24/04, 12/13/04, 7/1/05, and 12/9/05
Unusual Event 251-74-6, Nov 26, 1974; Unit 3 Refueling Cavity Leaks,
Unusual Event 251-75-3, Nov 6, 1975: Unit 4 SFP Leak;
Abnormal Occurrence 75-75-5, April 13, 1975: Unit 3 SFP Emergency Cooling Pump Discharge Hose de-connected
Reportable Occurrence 251-78-5, May 23, 1978: Unit 4 SFP Pit Cooling Pump Shaft Failure resulted in 50 gal spill to surrounding area; no isotopes identified
Reportable Occurrence 251-78-10, Sept 11, 1978: Unit 4 SFP Pit Cooling Pump Seal Failure resulted in 150 gal spill to surrounding paved area; no isotopes identified
LER 251-88-11, Aug 16, 1988: Unit 4 Alpha SFP Cooling Pump Leak
Reportable Event 90-03, Feb 20, 1990, Unit 3 SFP Cooling Pump Shaft Failure
CNRB Meeting No. 541, Presentation for Open Item-05-538-1, Investigation of Possible SFP Leakage to Groundwater,
Atlanta Testing & Engineering Report, Evaluation of Potential Radionuclide Migration for Turkey Point, 02/07/1989
Plant Turkey Point Nuclear Monthly Surface Water Sample Tritium Concentration Results, 1980 thru September 2005

Correction Action Program (CAP) Documents

CR 2004-2618, Air Sampler at T-72 Failed and Was Replaced
CR 2004-3157, Failure of the 10-Meter Tower Wind Speed and Direction
CR 2004-3245, Failure to Schedule Semi-Annual Met Tower PM Prior to Due Date
CR 2004-4967, Small Fire Near 60-Meter Tower Caused by Lightning
CR 2004-7718, 10-Meter High-Range Wind Speed and Direction Instruments Failed Low at the Land Utilization Meteorological Tower
CR 2004-7725, 10-Meter Tower Wind Speed Indication Failed During Hurricane Frances
CR 2005-16903, Meteorological Tower PMs May Lead to Communication Error
CR 2005-29519, 60-Meter Meteorological Tower Indications Failed
CR 2005-30276, South Dade Meteorological Tower Failed/EOOS (Met Tower)
CR 2005-35063, Delta Temperatures Used to Produce Meteorological Tower Joint Frequency Distribution Reports and Annual X/Q Reports Incorrectly Calculated
CR 2005-35163, 10-Meter Meteorological Tower Emergency Generator Voltage Output Greater than Design Voltage
CR 2005-35509, Failed Power Transformer in Land Utilization Meteorological Tower
CR 2006-1576, Wind Sensor Out at Land Utilization High Wind Monitoring Meteorological Tower

Section 40A1: Performance Indicator (PI) Verification

Procedures

EP-AD-011, Instructions for Maintaining the Emergency Preparedness NRC Performance Indicators and Program Health Report Generation, Rev. 7

0-ADM-032, NRC Performance Indicators Turkey Point, 11/22/04

Records and Data

Documentation (scenario/time line/event notification forms/Critique Report/Information Bulletin) of ERO drill on 08/30/2005

Documentation (Control Room log/event time line/critique report/CR) of NOUE declarations on 09/02/2004, 09/24/2004, 02/08/2005, 06/27/2005, 08/24/2005, 09/19/2005, 10/22/2005, 10/25/2005, 10/31/2005

Documentation of DEP opportunities: Licensed Operator Continuing Training evaluations on various dates in January-March 2005 and June-September 2005

Documentation of ANS tests, 01/01/2005 - 12/31/2005

Records of drill and exercise participation by selected key ERO personnel, 2004-2005