



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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

October 26, 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
05000250/2006004 AND 05000251/2006004

Dear Mr. Stall:

On September 30, 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 October 4, 2006, with Mr. W. Webster 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 was one finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. However, because of the very low safety significance of the issue, and because it was entered into your corrective action program, the NRC is treating the issue as a Non-Cited violation (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 05000250/2006004 and 05000251/2006004
w/Attachment: Supplemental Information

cc: (See page 3)

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Report to J.A. Stall from Joel T. Munday dated October 26, 2006

SUBJECT: TURKEY POINT NUCLEAR PLANT - INTEGRATED INSPECTION REPORT
05000250/2006004 AND 05000251/2006004

Distribution w/encl:

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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: 05000250/2006004, 05000251/2006004

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: July 1 - September 30, 2006

Inspectors: S. Stewart, Senior Resident Inspector
T. Kolb, Resident Inspector
R. Aiello, Senior Operations Engineer (1R19, 1R22)
W. Rogers, Senior Reactor Analyst (1R13)
J. Brady, Senior Resident Inspector, McGuire (4OA3)
R. Reyes, Resident Inspector, Crystal River 3 (1R01)
R. Taylor, Reactor Inspector (1R01)

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

Enclosure

SUMMARY OF FINDINGS

IR 05000250/2006-004, 05000251/2006-004; 07/01/2006 - 09/30/2006; Turkey Point Nuclear Power Plant, Units 3 and 4; Flood Protection Measures

The report covered a three month period of inspection by resident and region based inspectors. One Green NCV was identified. 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: Mitigating Systems Cornerstone

Green. The inspectors identified a Green, non-cited violation (NCV) of 10 CFR 50 Appendix B, Criterion XVI, Corrective Actions, for failure to take actions to prevent repeated deficiencies with external flood protection equipment. Although deficiencies with wooden stoplogs had been identified and left uncorrected at the start of hurricane season in 2005, corrective actions were not sufficient to prevent recurring problems that extended into the hurricane season in 2006. The licensee entered the issue in their corrective action program and planned to replace the vulnerable wooden stoplogs with an aluminum design.

The finding is more than minor because it was repetitive and affected protection against external factors of systems in the Mitigating Systems Cornerstone. The finding screens to be of very low safety significance (Green) because the inspectors judged that the licensee would have successfully prevented loss of one or more trains of a system that supports a safety function had a maximum hurricane and flood occurred. The cause of the finding is related to the Problem Identification and Resolution cross-cutting area in that the licensee did not take appropriate corrective actions in a timely manner, following problems with flood barriers in 2005, to prevent recurring degraded barriers during the hurricane season in 2006. (Section 1R06)

B. Licensee Identified Violations

None

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REPORT DETAILS

Summary of Plant Status:

Unit 3 began the period at or near full power. On August 28, power was reduced to 73 percent due to problems with rod control indication. Power was further reduced to 59 percent on August 29 due to pending hurricane conditions. The plant was returned to full power on August 30.

Unit 4 began the period at full rated thermal power and operated at or near full power for most of the inspection period. On August 29, power was reduced to 59 percent due to pending hurricane conditions. The plant was returned to full power on August 30.

1. REACTOR SAFETY

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

1R01 Adverse Weather Protection

.1 Impending Adverse Weather: Tropical Storm Ernesto

a. Inspection Scope

During the preparations and onset of Tropical Storm Ernesto on August 29, 2006, the inspectors verified the status of licensee actions in accordance with off-normal procedure 0-ONOP-103.3, Severe Weather Preparations, and 0-EPIP-20106, Natural Emergencies. This verification included physical walkdowns of portions of the plant protected area and discussions with responsible licensee personnel regarding preparations of systems and personnel for high winds and potential flooding. The inspectors specifically examined the following areas:

- 4A Emergency Diesel Generator
- Unit 3 main and startup transformers
- Intake pump area

b. Findings

No findings of significance were identified.

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 visually verify that the critical portions of the operable systems were correctly aligned.

Enclosure

- Unit 3 and Unit 4 auxiliary feedwater (AFW), when C AFW pump was aligned to Train 1
- Unit 3, component cooling water (CCW), when 3A CCW pump was out of service for breaker replacement and motor inspection
- Unit 4 electrical distribution, when removing the Unit 4 startup transformer from service during switchyard work

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown

a. Inspection Scope

The inspectors conducted a detailed walkdown/review of the alignment and condition of the Unit 3 and Unit 4 125 VDC batteries, chargers, and DC distribution panels to verify proper equipment alignment and identify any discrepancies that could impact the function of the system and increase risk. The inspectors utilized licensee procedure O-OP-003.1, 125V Vital DC System, and drawings 5613(14)-E-11, 125V DC and Vital AC Systems, as well as other licensing and design documents, when verifying that the system alignment was correct. During the walkdown, the inspectors also verified, as appropriate, that: (1) distribution panel breakers were in their normal alignment to support safety system operability; (2) batteries were maintained with appropriate fluid levels with satisfactory material condition; (3) major portions of the system and components were correctly labeled, cooled, and ventilated; (4) supports were correctly installed and functional; (5) essential support systems were operational; (6) ancillary equipment or debris did not interfere with system performance; (7) tagging clearances were appropriate; and (8) breaker interlock devices to prevent parallel operation were effective. Pending design and equipment issues were reviewed to determine if the identified deficiencies significantly impacted the system's functions. Items included in this review were the operator workaround list, the temporary modification list, system health reports, and outstanding maintenance work requests/work orders. In addition, the inspectors reviewed the licensee's corrective action program to ensure that the licensee was identifying and resolving equipment alignment problems.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

.1 Fire Area Walkdowns:

The inspectors toured the following nine plant areas during this inspection period to evaluate conditions related to control of transient combustibles and ignition sources and

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 3, A and B residual heat removal (RHR) pump room
- Unit 3, A and B diesel generator rooms
- Unit 4, charging pump room
- Unit 3 and Unit 4 high head safety injection rooms
- Unit 3 and Unit 4 125 VDC battery rooms
- Unit 3 and Unit 4 cable spreading room
- Common Radwaste building
- Unit 4, 4160 volt switchgear rooms
- Main control room

b. Findings

No findings of significance were identified.

.2 Annual Fire Drill:

a. Inspection Scope

On August 9, 2006, the inspectors observed the control room actions during a fire drill conducted in the auxiliary feedwater cage area. The inspectors verified that the drill was administered in accordance with licensee procedure FPAD-010, Fire Brigade and Mutual Aid Drill Scenario Development. The inspectors observed coordination of the fire fighting activities through the use of 0-ONOP-016.8, Response to a Fire/Smoke Detection System Alarm, and 0-ONOP-016.10, Pre-Fire Plan Guidelines and Safe Shutdown manual Actions. The inspectors observed the use of licensee procedure 0-EPIP-20101, Duties of the Emergency Coordinator, in determining the Alert Emergency Action Level (EAL) classification for this drill. Additionally, the inspectors evaluated the SCBA program including storage, training, expectations for use, and maintenance. The inspectors checked that licensee personnel documented drill observations in CR 2006-23116 and checked the licensee's disposition of other fire protection related condition reports.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

.1 Internal Flooding

a. Inspection Scope

The inspectors conducted walkdowns of the following areas which included checks of the sumps to ensure that flood protection measures were in accordance with design specifications. The inspectors reviewed the Updated Final Safety Analysis Report, Appendix 5F, Internal Plant Flooding, that discussed protection of areas containing safety-related equipment that may be affected by internal flooding. Specific plant attributes that were checked included structural integrity, availability of temporary flooding barriers, sealing of penetrations, control of debris, and operability of sump systems. The system health report for System 61, Waste Disposal for the first quarter of 2006 was reviewed.

- Unit 4, 4160 volt switchgear rooms
- Unit 3, 4160 volt switchgear rooms
- RHR pump room

b. Findings

No findings of significance were identified.

.2 External Flooding

a. Inspection Scope

The inspectors reviewed the Updated Final Safety Analysis Report, Appendix 5G, External Flood Protection for Turkey Point, that discussed the design flood levels and protection for areas containing safety-related equipment. A general site walkdown was conducted, with a specific walkdown of the external areas of the plant protected by stoplogs to ensure that flood protection measures were in accordance with design specifications. Specific plant attributes that were checked included structural integrity, sealing of penetrations below the design flood line, and adequacy of flood barriers. FP&L Drawings 5610-C-1695 and 5610-C-1696 were checked to verify that stoplogs were maintained and stored as per design specifications. Procedure 0-SMM-102.1, Flood Protection Stoplog and Penetration Seal Inspection, was reviewed to ensure that the flood protection barrier was capable of performing its function during a design basis flood event of +20 feet above mean low water level for hurricane wave run-up. EPIP-20106, Natural Emergencies, was reviewed to ensure guidance was provided to protect safety related plant equipment during postulated flood conditions.

b. Findings

Introduction: The inspectors identified a Green, non-cited violation (NCV) of 10 CFR 50 Appendix B, Criterion XVI, Corrective Actions, for failure to take actions to prevent repeated deficiencies with external flood protection equipment. Although deficiencies

with wooden stoplogs had been identified and left uncorrected at the start of hurricane season in 2005, corrective actions were not sufficient to prevent recurring problems that extended into the hurricane season in 2006.

Description: Turkey Point Final Safety Analysis Report, Appendix 5G, describes external flood protection from the predicted maximum flood resulting from the maximum probable hurricane as a continuous barrier consisting of external walls with stoplogs for door openings. On June 22, 2006, during licensee surveillance, 0-SMM-102.1, Flood Protection Stoplog and Penetration Seal Inspection which started on April 17, 2006, the licensee found that stoplog #20 (auxiliary building entrance) could not be installed because it was too tight in the grooves. The licensee initiated CR 2006-11739 for the deficiency and the CR was closed on May 20, 2006 with no actions required as work orders were generated to repair stoplog 20 and other deficiencies of less risk significance. The licensee initiated CR 2006-19443 on June 28, 2006 which identified that work on stoplog 20 was incomplete and being tracked for hurricane season preparations. Work Order 36010378 was completed on July 7, 2006 for the deficient stoplog.

The inspectors reviewed the February 18, 2005 performance of 0-SMM-102.1 which identified six stoplogs as unsatisfactory (Stoplogs SL-1S, 16, 18, 19, 20, and 22). Work orders 35005202, 35005203 and 35005013 were initiated to rebuild the stoplogs. Condition report (CR) 2005-13312 was initiated to identify that stoplogs #16 and #19 required repairs and subsequently closed with no additional action required based on initiation of a work order. These work orders were completed on July 28, 2005.

The inspectors determined that corrective actions to prevent recurrence of stoplog degradation in 2006 following problems with stoplogs in 2005 had been ineffective. Specifically, corrective actions to repair deficient stoplogs were not taken in a timely manner, in that deficiencies that included an inability to insert the stoplogs into the staged holders remained after the start of hurricane season (June 1) in both 2005 and 2006. The inspectors were specifically concerned about wooden stoplog #20 for the auxiliary building which had repeatedly swelled and was unable to fit in the holder in 2006 after being rebuilt to meet the acceptance criteria of 0-SMM-102.1 for deterioration and proper fit in 2005.

Analysis: The inspectors determined that repeatedly, entering hurricane season (June 1) with degraded flood protection barriers, was a performance deficiency because it represented operation not within the design of the facility. The finding was considered to be more than minor because it was repetitive and affected the protection against the external factors attribute of the Mitigating Systems Cornerstone objective to ensure reliability of systems that respond to initiating events (flooding) to prevent undesirable consequences. The finding screened to be of very low safety significance (Green) using Inspection Manual Chapter (IMC) 0609, Appendix A, Determining the Significance of Reactor Inspection Findings for At-Power Situations, because the inspectors judged that the degraded flood barriers would not have likely resulted in loss of one or more trains of a system that supports a safety function. Specifically, although the residual heat removal (RHR) pumps are below grade level within the

auxiliary building and would be affected by the failure of stoplog #20, the inspectors considered that given a minimum of 24 hours notice of advance of a severe hurricane, the licensee could have either repaired the stoplog or implemented sufficient compensatory measures which would have delayed auxiliary building flooding to prevent a loss of a safety function. These compensatory measures could include modifying the stoplog such that it would be functional, sandbagging, or other similar measures. The inspectors evaluated the licensee's actions for an impending storm per licensee procedure 0-EPIP-20106, Natural Emergencies, and determined that adequate tracking was specified for degraded flood barriers during preparations for severe weather.

The cause of the finding was the licensee's failure to take appropriate corrective action to address the safety issue of degraded wooden stoplogs prior to the onset of severe weather season. This finding is related to the Problem Identification and Resolution cross-cutting area for corrective actions in that the licensee failed to take adequate corrective actions following problems with the barriers in 2005, to prevent recurring degraded stoplogs during the hurricane season in 2006.

Enforcement: 10 CFR 50 Appendix B, Criterion XVI, Corrective Actions, requires, in part, that conditions adverse to quality, such as deficiencies and defective equipment are promptly corrected. Contrary to this requirement, during the summers of 2005 and 2006, deficiencies identified in flood protection stoplogs were not promptly corrected to prevent defective equipment from being in service during the hurricane seasons of 2005 and 2006. This violation has been determined to have a very low safety significance because the observed deficiencies were adequately tracked by the licensee as there was reasonable assurance that they would have been corrected or adequately compensated, prior to the onset of a design basis flooding event. Because the deficiencies associated with the flood protection stoplogs have been repaired for 2006 and have been entered into the corrective action program as CR 2006-18975 and 19228, this violation is being treated as a Non-Cited violation (NCV), consistent with Section VI.A of the NRC Enforcement policy. NCV 05000250, 251/2006 004-01; Failure to implement adequate corrective actions to prevent recurring deficiencies in flood protection barriers

The licensee planned to replace the wooden stoplogs with a metal design that would not be subject to swelling or deformation.

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors witnessed heat exchanger cleaning activities on the 3B component cooling water heat exchanger, which provides heat transfer for safety related equipment during normal and emergency operations. On July 20, 2006, the inspectors observed maintenance personnel perform heat exchanger cleaning under work order number 36011920. The inspectors verified that activities were conducted in accordance with licensee procedure 0-PMM-030.1, "Component Cooling Water Heat Exchanger Cleaning". The inspectors checked monitoring and trending of heat

exchanger performance done weekly using licensee procedure 3/4-OSP-030.4, Component Cooling Water Heat Exchanger Performance Testing, and verified the operational readiness of the system should it be needed for accident mitigation. The inspectors verified that the licensee employed the heat transfer method described in EPRI-NP-7552, Heat Exchanger Performance Monitoring Guidelines. The inspectors walked down portions of the cooling systems for integrity checks and to assess material condition. Maintenance rule monitoring of the system was verified.

Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program

.1 Quarterly Review

a. Inspection Scope

During the week of August 7, 2006, the inspectors observed and assessed licensed operator continuing training requalification activities for Segment 3. The simulated events were done using the licensee's plant specific simulator per Scenario 750006508. The inspectors observed the operator's use of 3-EOP-E-0, Reactor Trip and Safety Injection, 3-EOP-E-1, Loss of Reactor or Secondary Coolant, 3-EOP-ECA-1.1, Loss of Emergency Coolant Recirculation; and off normal procedures, 3-ONOP-67, Radioactive Effluent Release, and 3-ONOP-041.1, Reactor Coolant Pump Off-Normal. The operator's actions were checked to be in accordance with licensee procedures. Event classifications (including General Emergency) were checked for proper classification and protective action recommendations. The licensee simulated 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 checked that CR 2006-22761 was written when operators did not correctly specify protective action recommendations during a simulated General Emergency
- Overall crew performance as a team to identify and mitigate the simulated transients

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the following three 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 0-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. The inspectors used licensee engineering procedure EDI-ENG-025, Management and Administration of Maintenance Rule Processes, and the applicable system health reports in the reviews.

- CR 2006-25754, Trip of Unit 4 Instrument Air Compressor 4CD due to high temperature. This review included use of licensee procedure 4-OP-013, Instrument Air System, for installation and operation of a temporary air compressor.
- CR 2006-6604, Failure of MOV-3-744B to open when demanded
- CR 2006-26304, 4B intake cooling water pump entered alert range for pump differential pressure

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluationa. Inspection Scope

The inspectors completed in-office reviews and control room inspections of the licensee's risk assessment of six 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:

- Unit 4, FT-4-435, "C" Loop RCS Flow Transmitter, oscillating 5-6% and subsequently declared inoperable
- Unit 3, CR 2006-24338, Unacceptable diesel fuel delivered to site and potentially none available
- Unit 3, Risk assessment for power increase to 100% following Tropical Storm Ernesto. The load threat was toggled due to the C feedwater regulating valve being in manual control, CR 2006-24691
- Unit 3, CR 2006-25046, 3A reactor trip breaker failed to close following surveillance
- Unit 4, Risk management for surveillance test 4-OSP-005.1, Station Blackout Operability Test, when unit air compressors 4CM and 4CD were out of service for valve maintenance
- Unit 4, risk assessment for removal from service of the B intake cooling water train for mechanical cleaning after failure of instrument air compressor 3CM, with degraded availability of air compressor 4CM due to electrical grounds and heightened trip risk due to switchyard activities

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), Design Basis Documents (DBD's), applicable supporting documents and procedures, and interviewed plant personnel to assess the adequacy of the interim condition report disposition.

- CR 2006-16932, Unit 3 containment tendon grease leakage
- CR 2006-20370, 3C intake cooling water motor filter severely waterlogged
- CR 2006-20754, 3A accumulator in-leakage of 2.5 gpm
- CR 2006-25254, Unit 4 failure of Alternate Shutdown panel transfer switch
- CR 2006-26536, Constant level oilers improperly installed
- CR 2006-27049, Unit 4 HHSI cold leg vent valve, 4-947D, leaks by

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 35018464-01 associated with MOV-3-1404 motor operator inspection
- Unit 4, WO 36000588-01 480v motor control center breaker maintenance
- Unit 3, WO 35018481-01 Replace C intake cooling water pump check valve 3-50-331
- Unit 3, WO 36016717-01 sticking speed control linkage on 3C charging pump
- Unit 3, WO 35031228-01 3B EDG air start tank pressure switch sticking
- Common, WO 35029447-01 CAT 600 annual preventive maintenance

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors either reviewed or witnessed the following seven surveillance tests to verify that the tests met the technical specifications, the UFSAR, the licensee's procedural requirements, and demonstrated that 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

SSC's to perform its safety function. The tests reviewed included an inservice test (IST).

- Unit 3, 3-OSP-300.3, Safe Shutdown and Alternate Shutdown Operability Test, Section 7.15 for breaker 3AB19
- Unit 3, 3-OSP-200.3, Secondary Plant Periodic Tests (turbine trip testing)
- Unit 4, 4-OSP-075.9, AFW Overspeed Test
- Unit 3, 3-OSP-059.4, Power Range Nuclear Instrumentation Analog Channel Operational Test
- Unit 4, 4-OSP-206.2, Quarterly Inservice Valve Testing (IST)
- Unit 4, 4-OSP-206.1, Inservice Valve Testing - Cold Shutdown (4A atmospheric dump valve only)
- Unit 4, 4-OSP-300.3, Safe Shutdown and Alternate Shutdown Operability Test, for the 4B TPCCW Pump breaker

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the temporary modification 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. 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.

- Unit 3, TSA 03-06-028-013, Rod Position Indication for control bank rod M-6 using gripper coil voltage

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness (EP)

1EP6 Drill Evaluation

Simulator Based Training Drill

a. Inspection Scope

On September 14, 2006, the inspectors observed the licensee simulator based

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training that included evaluation of licensed operator event classification. Results of the training are used by the licensee as inputs into the Drill/Exercise Performance and Emergency Response Organization Drill Participation Performance Indicators. The simulation involved a Notice of Unusual Event declaration for loss of all control room annunciators for greater than 15 minutes and an Alert declaration for a radioactivity release related to a fuel handling event. The Technical Support Center and Emergency Offsite Facility were staffed after the Alert Declaration in accordance with licensee procedures. Subsequently, a large reactor coolant system leak occurred driving the plant to a Site Area Emergency followed by a General Emergency when containment pressure increased to greater than 20 psig. The inspectors observed the licensee's event classification and notifications in accordance with licensee procedure 0-EPIP-20101, Duties of the Emergency Coordinator. A single Protective Action Recommendation was reviewed for adequacy. At the conclusion of the drill, the

inspectors discussed the drill with plant staff and noted that licensee identified problems were documented in the corrective actions program.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

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 two condition reports for detailed review and discussion with the licensee. The condition reports were reviewed to ensure that an

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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 reports in accordance with the requirements of the licensee's corrective actions process as specified in NAP-204, Condition Reporting.

- CR 2006-6604; MOV-3-744B, Breaker 30613 tripped when trying to open valve
- CR 2006-22761; Missed Protective Action Recommendation during simulator based drill, included a review of the licensee's followup condition report CR 2006-27288

b. Findings and Observations

No findings of significance were identified.

4OA3 Event Followup

.1 (Closed) LER 0500250/2006-006-00, Drilled Hole Found in Pressurizer Relief Piping Degrades Reactor Coolant Pressure Boundary.

On March 31, 2006, with Unit 3 in Mode 5, the licensee found a hole in the line between the pressurizer power operated relief valve (PORV) and the upstream PORV block valve. The NRC conducted an AIT and the results were documented in IR 05000250&251/2006012. The inspector confirmed that the corrective actions from the LER were completed. This item is closed.

.2 (Closed) LER 05000250/2005005-00, Manual Reactor Trip Due to Decrease in the 3C Steam Generator Level.

The LER provided details of an October 15, 2005 manual reactor trip that was inserted when a lowering of steam generator level occurred due to feedwater control system malfunctions. The apparent cause of the failure was determined to be a failure of a feedwater control system transistor Q2 (SM3915), which had opened. The reason for the failure of Q2 was not identified. When the failure occurred, the main feedwater flow control valve, FCV-3-498, would not modulate open even in manual control. Therefore, the reactor had to be manually tripped. Subsequent to the trip, operators closed the main steam isolation valves in response to observing that one of the four steam to reheat isolation valves did not close. The licensee's corrective action included the replacement of the valve positioner for FCV-3-498, and revision to the valve inspection instructions to include explicit installation details. The inspector reviewed work order WO 36000019 through 36000025 which were used to replace FCV-3-478, 488, 498, 479, and 489 positioners and condition report CR 2005-28177 which described the licensee's review of the event. No performance deficiencies or violations of NRC requirements were identified by the inspectors and the LER is closed.

- .3 (Closed) LER 05000250/2006-005-01, Ground Test Devices Installed in Startup Transformer Output Breakers Causes Both Unit 3 Emergency Diesel Generators to be Inoperable

(Closed) LER 05000250/2006-005-00, Ground Test Devices Installed in Startup Transformer Output Breakers Causes Both Unit 3 Emergency Diesel Generators to be Inoperable

The LER describes an event discovered during a partial loss of offsite power event on Unit 3 that was the result of personnel using the wrong procedure for grounding the Unit 3 startup transformer for maintenance. The enforcement aspects of the issue were documented in NRC Inspection Report 05000250&251/2006002, Section 1R20, Refueling and Other Outage Activities. As corrective action, the licensee documented the event in the corrective actions program and implemented a modification that removed the need to install jumpers for Unit 3 diesel operability. The LER and its revision are closed.

40A5 Other

Closed) NRC Temporary Instruction (TI) 2515/165: Operational Readiness of Offsite Power and Impact on Plant Risk

The inspectors reviewed licensee procedures and controls and interviewed operations and maintenance personnel to verify these documents contained specific attributes delineated in the TI to ensure the operational readiness of offsite power systems in accordance with plant Technical Specifications; the design requirements provided in 10 CFR 50, Appendix A, General Design Criterion 17, "Electric Power Systems;" and the impact of maintenance on plant risk in accordance with 10 CFR 50.65(a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." Documents reviewed are listed in the Attachment. Appropriate documentation of the results of this inspection was provided to NRC headquarters staff for further analysis, as required by the TI. This completes the Region II inspection TI requirements for the Turkey Point Nuclear Plant.

40A6 Exit

Exit Meeting Summary

The resident inspectors presented the inspection results to Mr. Webster and other members of licensee management at the conclusion of the inspection on October 4, 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

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

NRC personnel:

C. Casto, Director Division of Reactor Projects, Region II
J. Munday, Projects Branch Chief, Region II
C. Even, Reactor Inspector

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Open and Closed

05000250,251/2006-004-01 NCV Failure to implement adequate corrective actions to prevent recurring deficiencies in flood protection barriers (Section 1R06)

Closed

0500250/2006-006-00 LER Drilled Hole Found in Pressurizer Relief Piping Degrades Reactor Coolant Pressure Boundary (Section 40A3)

05000250/2005005-00 LER Manual Reactor Trip Due to Decrease in the 3C Steam Generator Level. (Section 40A3)

05000250/2006-005-01 LER Ground Test Devices Installed in Startup Transformer Output Breakers Causes Both Unit 3 Emergency Diesel Generators to be Inoperable (Section 40A3)

05000250/2006-005-00 LER Ground Test Devices Installed in Startup Transformer Output Breakers Causes Both Unit 3 Emergency Diesel Generators to be Inoperable (Section 40A3)

2515/165 TI Operational Readiness of Offsite Power and Impact on Plant Risk (Section 40A5)