UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

April 7, 2014

Mr. Mano Nazar
Executive Vice President and Chief Nuclear Officer
Florida Power and Light Company
P.O. Box 14000
Juno Beach, FL 33408-0420

SUBJECT: TURKEY POINT NUCLEAR GENERATING UNITS 3 AND 4 – NRC COMPONENT DESIGN BASES INSPECTION REPORT 05000250/2014007 AND 05000251/2014007

Dear Mr. Nazar:

On February 28, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Turkey Point Nuclear Generating Units 3 and 4 and discussed the results of this inspection with Mr. Mike Kiley and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

NRC inspectors documented one finding of very low safety significance (Green) in this report. This finding involved a violation of NRC requirements. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violation or significance of this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC resident inspector at Turkey Point Nuclear Generating Units 3 and 4.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region II; and the NRC resident inspector at Turkey Point Nuclear Generating Units 3 and 4.

In accordance with Title 10 of the Code of Federal Regulations 2.390, “Public Inspections, Exemptions, Requests for Withholding,” of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Document Access and Management 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

Rebecca L. Nease, Chief
Engineering Branch 1
Division of Reactor Safety

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

Enclosure:
Inspection Report 05000250/2014007, 05000251/2014007
w/ Attachment: Supplemental Information

cc: Distribution via Listserv

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NAME	LIGHTY	MAS	PATEL	PATTERSO	WALKER
DATE	3/17/14	3/17/14	3/21/14	3/21/14	
E-MAIL COPY	**YES** NO	**YES** NO	**YES** NO	**YES** NO	**YES** NO
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Letter to Mr. Mano Nazar from Rebecca L. Nease dated April 7, 2014.

SUBJECT: TURKEY POINT NUCLEAR GENERATING UNITS 3 AND 4 – NRC COMPONENT DESIGN BASES INSPECTION REPORT 05000250/2014007 AND 05000251/2014007

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.:	50-250, 50-251
License Nos.:	DPR-31, DPR-41
Report Nos.:	05000250/2014007, 05000251/2014007
Licensee:	Florida Power & Light Company (FP&L)
Facility:	Turkey Point Nuclear Generating Units 3 & 4
Location:	9760 S. W. 344th Street Homestead, FL 33035
Dates:	January 27, 2014 - February 28, 2014
Inspectors:	Shakur Walker, Senior Reactor Inspector (Lead) Tonya Lighty, Reactor Projects Engineer Delza Mas, Reactor Inspector Robert Patterson, Reactor Inspector Jigar Patel, Accompanying Personnel Craig Baron, Contractor (Mechanical) George Morris, Contractor (Electrical)
Approved by:	Rebecca Nease, Branch Chief Engineering Branch 1 Division of Reactor Safety

SUMMARY

IR 05000250/2014007, 05000251/2014007; 01/27/2014 – 02/28/2014; Turkey Point Nuclear Generating Units 3 and 4; Component Design Bases Inspection.

This inspection was conducted by a team of five Nuclear Regulatory Commission (NRC) inspectors from Region II, and two NRC contract personnel. One Green non-cited violation (NCV) was identified. The significance of inspection findings is indicated by their color (Green, White, Yellow, Red) using the NRC Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated June 2, 2011. Cross-cutting aspects are determined using IMC 0310, "Components Within the Cross Cutting Areas," dated October 28, 2011. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated January 28, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green: The team identified a non-cited violation of Technical Specification 6.8.1, "Procedures and Programs," for the licensee's failure to implement procedure 0-ADM-232, Time Critical Action Program, to ensure time critical actions (TCAs) important to mitigate design basis events could be performed in the required time. The failure to implement this procedure was a performance deficiency. No documentation existed to demonstrate that the TCA to restore power to the battery chargers during a station blackout could be performed within the required time (30 minutes). The team also identified a TCA to locally isolate the auxiliary feedwater for a faulted steam generator that did not have a job performance measure to demonstrate the successful completion of the action. The licensee entered this issue into the corrective action program as action requests 01944453, 01945532, 01943321, 01943425, and 01943697. For TCAs where no validation documentation could be determined, the licensee completed tabletop exercises, simulator exercises, and field walkdowns to ensure that all of the TCAs to mitigate design basis events could be completed within the required action times.

  The performance deficiency was determined to be more than minor because it was associated with the Human Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee did not implement 0-ADM-232 adequately to ensure that the TCAs listed in Attachment 1 of the procedure were properly validated; consequently, the licensee could not demonstrate that TCAs could be successfully executed in accordance with the design basis. The team determined the finding to be of very low safety significance (Green) because the finding was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; and did not represent a loss of system and/or function. The team determined this finding was associated with the cross-cutting aspect of Procedure Adherence in the area of Human Performance because although the procedure was recently revised to include all necessary requirements to maintain the time critical action program, the licensee failed to follow procedure 0-ADM-232, which resulted in several TCAs not being properly validated. [H.8] (Section 1R21.2)

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R21 Component Design Bases Inspection (71111.21)

.1 Inspection Sample Selection Process

The team selected risk-significant components and related operator actions for review using information contained in the licensee's probabilistic risk assessment. In general, this included components and operator actions that had a risk achievement worth factor greater than 1.3 or Birnbaum value greater than 1E-6. The sample included 16 components, one of which was associated with containment large early release frequency (LERF), and six operating experience (OE) items.

The team performed a margin assessment and a detailed review of the selected risk-significant components and operator actions to verify that the design bases had been correctly implemented and maintained. Where possible, this margin was determined by the review of the design basis and Updated Final Safety Analysis Report (UFSAR) response times associated with operator actions. This margin assessment also considered original design issues, margin reductions due to modifications, or margin reductions identified as a result of material condition issues. Equipment reliability issues were also considered in the selection of components for a detailed review. These reliability issues included items related to failed performance test results, significant corrective action, repeated maintenance, maintenance rule status, Regulatory Issue Summary 05-020 (formerly Generic Letter 91-18) conditions, NRC resident inspector input regarding problem equipment, system health reports, industry OE, and licensee problem equipment lists. Consideration was also given to the uniqueness and complexity of the design, OE, and the available defense-in-depth margins. An overall summary of the reviews performed and the specific inspection findings identified is included in the following sections of the report.

.2 Component Reviews

a. Inspection Scope

Components

- Security diesel generator, the security battery, and the security battery charger
- 125 VDC safety-related batteries 3A, 3B, 4A, and 4B
- 125 VDC safety-related battery chargers
- 120 VAC vital instrument power inverters and panels
- 480VAC load centers 3A, 3B, 3B, 3C, 3D, 3H, 4A, 4B, 4C and 480 V motor control centers - 3B, 3C, 4B, 4C
- Auxiliary feedwater (AFW) steam admission valves to the turbine driven AFW (TDAFW) pumps – MOV-3-1403/4/5
- AFW injection valves to the steam generators – CV-2816/17/18 or CV-2831/32/33 – condensate storage tank (CST) level instruments

- Check valves for AFW and safety injection (SI) systems – 3-893A/B and 20-143/243/343
- Standby steam generator feedwater pumps
- Refueling water storage tank (RWST) and associated level instruments
- Residual heat removal (RHR) isolation valves for intersystem loss of coolant accident (LOCA) – MOV-750,-751
- DC bus 3D23
- Pressurizer auxiliary spray valve – CV-3-311
- Power transformers – main generator transformers MT 3X01 and 4X01; startup transformers SUT 3X01 and 4X0; unit auxiliary transformers UAT 3X01 and 4X01

Components with LERF Implications

- Pressurizer power-operated relief valves – PCV-455C, PCV-456

For the 16 components listed above, the team reviewed the plant technical specifications (TS), UFSAR, design bases documents (DBDs), and drawings to establish an overall understanding of the design bases of the components. Design calculations and procedures were reviewed to verify that the design and licensing bases had been appropriately translated into these documents. Test procedures and recent test results were reviewed against DBDs to verify that acceptance criteria for tested parameters were supported by calculations or other engineering documents, and that individual tests and analyses served to validate component operation under accident conditions. Maintenance procedures were reviewed to ensure components were appropriately included in the licensee's preventive maintenance program. System modifications, vendor documentation, system health reports, preventive and corrective maintenance history, and corrective action program documents were reviewed (as applicable) in order to verify that the performance capability of the component was not negatively impacted, and that potential degradation was monitored or prevented. Maintenance Rule information was reviewed to verify that the component was properly scoped, and that appropriate preventive maintenance was being performed to justify current Maintenance Rule status. Component walkdowns and interviews were conducted to verify that the installed configurations would support their design and licensing bases functions under accident conditions and had been maintained to be consistent with design assumptions.

Additionally, the team performed the following component-specific reviews:

- The team reviewed the calibration of loop elements and the bases for the associated comparator setpoints in the operating and alarm procedures, for the pressure and level instruments associates with the RWST, CST, and the reactor coolant pressure control system.
- The team observed the control room indicators and alarms for the AC power systems.
- The team reviewed major modifications for the power transformers related to the EPU: EC 242520, 242521, 242435, and 242440.
- The team reviewed the battery room hydrogen dilution calculation to verify that the hydrogen concentration would stay below flammable limits during normal and postulated accident conditions.
- The team reviewed the capability of the security inverter and associate instrument panel to provide instrumentation and control power during all conditions, but particularly during accident conditions.

- The calculation for loading and voltage drop was reviewed for the security inverter and associate instrument panel to ensure that sufficient capacity exists for all normal and accident loading, and that sufficient voltage was available for all loads.
- The security battery loading study was reviewed to verify that the battery was capable of providing the appropriate voltage for the inverter during one hour.
- The team reviewed security diesel generator protective relaying schemes and calculations to determine that the security equipment was adequately protected, and to determine whether protective devices featured proper selective tripping coordination.
- The team reviewed the degraded voltage protection scheme to determine whether the voltage setpoints were selected based on the voltage requirements for security loads.
- The team reviewed the design and testing of the material and coating of the RWST.
- The team reviewed the design basis analyses associated with the capacity of the nitrogen bottles to operate the AFW flow control valves for the required time and the capability of the operators to replace the exhausted bottles when required.
- The team reviewed the design and testing of the control circuit interlocks between the AFW steam admission valves and the AFW flow control valves to verify that these circuits would perform the required functions assuming a single component failure and that the required circuits were fully tested on a periodic basis.
- The team reviewed the capability of the operators to locally isolate AFW flow to a faulted steam generator in the event of the single failure of an AFW flow control valve to close from the control room. This component failure would require operators to identify the condition and close a manual valve within 10 minutes.
- The team reviewed the TS requirements associated with taking a single AFW steam admission valve out of service. Specifically, the team investigated whether the AFW system would be capable of performing its required function with a faulted steam generator, the single failure of a steam admission valve, and one valve out of service.
- The team reviewed the basis of the reactor coolant system pressure interlocks associated with the motor operated RHR supply valves.
- The team reviewed the design and testing of the control circuit interlocks associated with the RHR supply valves to verify that these circuits would perform the required functions assuming a single component failure and that the required circuits were fully tested on a periodic basis.
- The team reviewed the TS requirements associated with operability of RHR and SI system components during Mode 4 operation. Specifically, the team investigated whether the RHR system would be capable of mitigating a postulated LOCA with only the minimum TS equipment available to the operators.
- The team reviewed the design pressures and overpressure protection of piping associated with interfaces between high and low pressure portions of the RHR system. Specifically, the team reviewed the design of the outboard piping to verify that it would not be over-pressurized due to valve leakage or the inadvertent opening of a single valve.
- The team reviewed the design basis analyses and supporting calculations for containment heat up, to verify that, during a design basis accident with a dual unit loss of offsite power and a LOCA on one unit, the non-accident unit containment temperatures would not affect safety-related instrumentation operability.

- The team reviewed the digital feedwater regulator valve and bypass valve modifications to ensure no additional initiating events were introduced as a result of the digital upgrades.
- The team observed simulator scenarios involving station blackout (SBO) time critical operator actions: 1) manually align safety related battery chargers to the SBO diesel supplied bus to verify the actions could be accomplished in 30 minutes from the start of the event; and 2) an action to manually align the SBO diesel to supply safety loads to both units from the control room within 10 minutes.
- The team reviewed Extended Power Uprate (EPU) calculations for flow-induced vibrations to ensure they correctly modeled plant configuration and verified that any errors introduced by components that were not correctly modeled, were bounded by the available margin.
- The team reviewed different testing methodologies for evaluating time critical operator scenarios, specifically use of video when evaluating operator crews, to ensure the consistency of time validation of operator actions during the scenarios.
- The team reviewed main feedwater line supports, deflector shields, and whip restraint modifications to ensure compliance with high-energy line breaks after the EPU.
- The team reviewed the emergency operating procedures with respect to high head safety injection pumps during main steam line break inside containment, steam generator tube rupture, small break LOCA, or an inadvertent SI actuation to verify if guidance exists to shut the pumps off within the required time to protect the pump.
- The team the reviewed the loss of all feedwater scenario to ensure adequate guidance for feed and bleed operation via SI and the pressure operated valves were adequate and were incorporated into the licensed operator continuous training program.
- The team reviewed completed surveillances for steam generator level and flow transmitters to verify they were updated to incorporate the new setpoints from the EPU.
- The team reviewed the flooding analysis to ensure that RWST level instrumentation would remain functional during design basis flooding event.
- The team reviewed the sites set point methodology for pressurizer pressure instrumentation to ensure compliance with the sites current licensing basis.

b. Findings

Introduction: The team identified a Green non-cited violation (NCV) of TS 6.8.1, Procedures and Programs, for the licensee's failure to implement procedure 0-ADM-232, Time Critical Action Program, adequately to ensure time critical actions (TCAs) important to mitigate design basis events could be performed in the required time.

Description: During an NRC observation of a requested simulator exercise for a SBO crosstie event on Unit 3 and Unit 4, and verifying the safety related battery chargers were manually loaded to a powered EDG within 30 minutes from the start of the event, the licensee did not meet the 30-minute time requirement for the battery chargers. The team requested documentation from previous performances of the TCA to ensure the 30-minute requirement could be met. The licensee could not provide any documentation that the TCA had been previously performed within the required time of 30 minutes.

In addition, the team determined that a job performance measure (JPM) for locally isolating AFW flow to the faulted steam generator during a main steam line break event inside containment within 10 minutes of event initiation, had not been created or validated. Isolation of AFW would usually be performed from the control room using an air-operated flow control valve; however, the emergency operation procedures 3/4-EOP-E-0 and 3/4-EOP-E-2 directed operators to manually isolate AFW flow if isolation from the control room is unsuccessful. This manual isolation would be performed using a manual isolation valve in series with the failed flow control valve.

Procedure 0-ADM-232 requires TCAs listed in Attachment 1, that are also credited in the licensee's design basis, be validated to ensure they can be performed within their required action times. The licensee could not provide documentation that the TCA for the battery chargers could be completed in the required timeframe. In addition, no JPM had been created for closing a manual isolation valve to the faulted steam generator within 10 minutes from the start of a main steam line break inside containment.

The licensee entered each issue into the corrective action program as action requests 01944453, 01945532, 01943321, 01943425, and 01943697 and completed tabletop exercises, simulator exercises, and field walkdowns to ensure that all of the TCAs listed in Attachment 1 could be completed within the required action times. The team verified appropriate corrective actions were taken if any deficiencies were identified during the review of Attachment 1 TCAs.

Analysis: The team determined that failure to implement procedure 0-ADM-232 was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the Human Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee did not implement 0-ADM-232 adequately to ensure that the TCAs listed in Attachment 1 of the procedure were properly validated and thus could not demonstrate that TCAs could be successfully executed in accordance with the design basis. The team used IMC 0609, Att. 4, "Initial Characterization of Findings," issued June 19, 2012, for Mitigating Systems, and IMC 0609, App. A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, and determined the finding to be of very low safety significance (Green) because the finding was not a deficiency affecting the design or qualification of a mitigating structure, system, or component, and did not result in a loss of operability or functionality; and did not represent a loss of system and/or function. The team determined this finding was associated with the cross-cutting aspect of Procedure Adherence in the area of Human Performance because although the procedure was recently revised to include all necessary requirements to maintain the time critical action program, the licensee failed to follow procedure 0-ADM-232, which resulted in several TCAs not being properly validated. [H.8]

Enforcement: Technical Specification 6.8.1 requires that procedures required by the Florida Power and Light Quality Assurance Topical Report be implemented and maintained. The Quality Assurance Topical Report includes procedures listed in Appendix A of NRC Regulatory Guide 1.33, Revision 2, dated February 1978, which lists procedures for authorities and responsibilities for safe operation and shutdown. Procedure 0-ADM-232 is a quality related procedure that would ensure safe operation of the plant by ensuring time critical operator actions could be performed in the required

action times to mitigate design basis events. Contrary to the above, procedure 0-ADM-232, Time Critical Operator Action Program, was not being properly implemented. Specifically, multiple procedural requirements were not being met, such as record retention, TCA validation, maintaining adequate emergency operating procedures, and development of JPMs and scenarios to address all TCAs. This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy. This violation was entered into the licensee's corrective action program as action requests 01944453, 01945532, 01943321, 01943425, and 01943697. (NCV 05000250,251/2014007-01, Failure to Properly Implement Time Critical Operator Action Program Procedure)

.3 Operating Experience

a. Inspection Scope

The team reviewed six operating experience issues for applicability at Turkey Point Nuclear Generating Units 3 and 4. The team performed an independent review of these issues and, where applicable, assessed the licensee's evaluation and dispositioning of each item. The issues that received a detailed review by the team included:

- NRC Information Notice (IN) 2012-11, "Age-related Capacitor Degradation," dated, July 23, 2012
- NRC IN 1993-64, "Periodic Testing and Preventive Maintenance of Molded Case Circuit Breakers," dated August 12, 1993
- NRC IN 2013-05, "Battery Expected Life and Its Potential Impact on Surveillance Requirements," dated March 19, 2013
- Regulatory Issues Summary 2005-29, "Anticipated Transient That Could Develop Into More Serious Events," dated December 14, 2005
- Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment," dated July 18, 1989
- Instrument calibrations and surveillance testing associated with Turkey Point Extended Power Uprate

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On February 28, 2014, the team presented the inspection results to Mr. Mike Kiley and other members of the licensee's staff. The inspectors verified that no proprietary information was documented in this report.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:
A. Chomat, Unit Supervisor
T. Conboy, Plant General Manager
P. Czaya, Licensing
C. Domingos, Engineering Director
J. Garcia, Engineering Director
D. Jenkins, Licensing Engineer
A. Katz, Maintenance Manager
M. Kiley, Site Vice-President
R. Smith, Engineering
B. Stamp, Training Manager
R. Tomonto, Licensing Manager

NRC personnel
D. Rich, Chief, Projects Branch 3, Division of Reactor Projects
T. Hoeg, Senior Resident Inspector, Division of Reactor Projects, Turkey Point Resident Office
M. Endress, Resident Inspector, Division of Reactor Projects, Turkey Point Resident Office
J. Hanna, Senior Reactor Analyst, Division of Reactor Projects

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

Opened and Closed

05000250, 251/2014007-01	NCV	Failure to Properly Implement Time Critical Operator Action Program Procedure [Section 1R21.2]

LIST OF DOCUMENTS REVIEWED

Procedures

0-CMP-102.01, Troubleshooting and repair Guidelines, Rev. 5
0-PME-003.27, Non-Vital 600 AMP 125 VDC Station Batter Charger Maintenance, Rev. 2
0-PMM-100.01, Security CAT 600 Diesel Annual Maintenance, Rev. 1
0-SME-003.15, Station Battery 60 Month Maintenance, Rev. 4
0-CME-003.1, Station Vital Battery Equalizing Charge, Rev. 1A
0-SME-003.04, 125VDC Station Battery Maintenance, Rev. 4
0-OPM-003.18, Security and Spare 125 VDC Station Battery Charger Maintenance, Rev. 4
0-ARP-097.CR.X, Control Room Response – Panel X, Rev. 1
0-SME-003.5, SCI-400 Amp Frame Battery Charger Maintenance – 18 Month PM, Rev. 3
0-AD-232 Time Critical Action Program, Rev. 3
0-ADM-101 Procedure Writer's Guide, Rev. 3
0-OSP-062.2, Safety Injection System Inservice Test, Rev. 2
0-OSP-075.12, AFW Manual Valve Operability Test, Rev. 2
0-ADM-209, Equipment Tagging and Labeling, 4/1/2004
0-ONOP-103.2, Cold/Hot Weather Conditions, Rev. 3
0-OSP-003.1, 125 V Vital DC System Breaker Alignment Verification, Rev. 0A
0-OSP-205.1, SUT and Onsite AC Power Distribution Verification, Rev. 6
0-PME-003.31, MCCB Preventive Maintenance, Rev. 3
3-PMI-062.35, RWST Level Channel L-3-6583A Calibration, Rev. 0A
3-EOP-E-1, Loss of Reactor or Secondary Coolant, Rev. 4
3-EOP-ES-1.3, Transfer to Cold Leg Recirculation, Rev. 3B
3-EOP-E-1, Loss of Reactor or Secondary Coolant, Rev. 4
3-EOP-E-2, Faulted Steam Generator Isolation, Rev. 3
3-EOP-E-3, Steam Generator Tube Rupture, Rev. 6
3-NOP-075, Auxiliary Feedwater System, Rev. 8
3-ONOP-047.1, Loss of Charging Flow in Modes 1 Through 4, Rev. 1
3-OSP-074.5 FW Control Valve and Bypass Valve Inservice Test, Rev. 5
3-EOP-E-0 Reactor Trip or Safety Injection, Rev. 6
3-EOP-ECA-0.0 Loss of All AC Power, Rev. 5
3-EOP-FR-H.1 Response to Loss of Secondary Heat Sink, Rev. 5A
3-ONOP-075 Auxiliary Feedwater System Malfunction, Rev. 3
3-ONOP-041.7, Shutdown LOCA [Mode 3 (Less than 1000 PSIG) or Mode 4], Rev. 1A
3-ONOP-075, Auxiliary Feedwater System Malfunction, Rev. 3
3-OSP-075.1, Auxiliary Feedwater Train 1 Operability Verification, Rev. 8
3-OSP-075.2, Auxiliary Feedwater Train 2 Operability Verification, Rev. 9
3-OSP-075.4, Auxiliary Feedwater Auto-Start Test, Rev. 3
3-OSP-075.5, Auxiliary Feedwater System Flowpath Verification, Rev. 2
3-OSP-075.6, Auxiliary Feedwater Train 1 Backup Nitrogen Test, Rev. 7
3-OSP-075.7, Auxiliary Feedwater Train 2 Backup Nitrogen Test, Rev. 8A
3-OSP-075.6, Auxiliary Feedwater Train 1 Backup Nitrogen Test, Rev. 7
3-OSP-075.9, AFW Overspeed Test, Rev. 5
3-OSP-075.10, AFW Flow Control Valve Operability Test, Rev. 2
3-OSP-300.1, Alternate Shutdown Panel 3C264 Operability Test
3-PMI-075.1, Auxiliary Feedwater Flow Indication and Control Instrumentation Calibration Channels F-3-1401 A, F-3-1457 A, and F-3-1458 A, Rev. 3A

3-PMI-075.2, Auxiliary Feedwater Flow Indication and Control Instrumentation Calibration Channels F-3-1401 B, F-3-1457 B, and F-3-1458 B, Rev. 3A
3-ARP-097.CR.G, Control Room Response-Panel G, Rev. 9
3-ARP-097.CR.H, Control Room Response-Panel H, Rev. 5
3-SMI-041.10, Pressurizer Pressure Protection, Rev. 2
4-SMI-041.10, Pressurizer Pressure Protection, Rev. 2
4-ARP-097.CR.G, Control Room Response-Panel G, Rev. 4
4-ARP-097.CR.H, Control Room Response-Panel H, Rev. 5
4-OSP-075.1, Auxiliary Feedwater Train 1 Operability Verification, Rev. 11
4-OSP-075.2, Auxiliary Feedwater Train 2 Operability Verification, Rev. 12
4-OSP-075.6, Auxiliary Feedwater Train 1 Backup Nitrogen Test, Rev. 9
4-OSP-075.7, Auxiliary Feedwater Train 2 Backup Nitrogen Test, Rev. 10A
4-NOP-074, Steam Generator Feedwater Systems, Rev. 9A
TR-AA-104, Nextera Energy Fleet Licensed Operator Continuing Training Program, Rev. 5
PI-AA-204, Condition Identification and Screening Process, Rev. 23
AD-AA-100-1006, Procedure and Work Instructions and Adherence, Rev. 3

Completed Procedures
0-OP-100, Security Diesel Operation, dated 8/23/13
0-OP-100, Security Diesel Operation, dated 12/6/13
0-OP-100, Security Diesel Operation, dated 3/16/13
0-OP-100, Security Diesel Operation, dated 10/31/13
0-OPS-003.1, 125V Vital Dc System Breaker Alignment Verification, dated 1/4/14
0-OPS-003.1, 125V Vital Dc System Breaker Alignment Verification, dated 1/11/14
0-OPS-003.1, 125V Vital Dc System Breaker Alignment Verification, dated 12/28/13
0-PME-006.3, 480V AC Load Center Breaker Inspection, dated 2/23/10
0-OSP-074.3, Standby Steam Generator Feedwater Pump Availability Test, dated 12/6/13
0-OSP-074.3, Standby Steam Generator Feedwater Pump Availability Test, dated 11/14/13
0-OSP-074.3, Standby Steam Generator Feedwater Pump Availability Test, dated 11/8/13
0-PME-003.3, 7.5 KVA Inverter Maintenance, dated 1/20/2012
3-OSP-050.8, RHR MOVS 750, 751, 862 and 863 interlock test, Rev. dated 05/24/2010
3-PMI-062.36, RWST Level Channel L-3-6583B Calibration, dated 12/07/09

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5614-M-3074 Sheet 3, Feedwater System, Rev. 32
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PTN-3FSE-07-001, AC Auxiliary Power System Studies, Rev. 4
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PTN-BFJE-92-028, Thermal Overload Selection for DC MOVs, R22-CCN-7
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PTN-BFSM-11-020, MOV-3/4-1403, 1404, 1405, Rev.0

PTN-BFSM-11-021, MOV-3/4-750/751, Rev.0
PTN-BFSM-11-021, MOV-3/4-1403, 1404, 1405, Rev.0
PTN-BFSM-11-022, MOV-3/4-750/751, Rev.0
PTN-BFSM-11-022, MOV-3/4-1403, 1404, 1405, Rev.0
PTN-BFSM-11-029, AOV Program: Auxiliary Feedwater (AFW) FCV Valve/Actuator Capability Post EPU, Rev. 0
PTN-BSSM-08-009, Aux Feedwater System Pump Evaluation for Extended Power Uprate (EPU), Rev. 9
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PTN-BFJE-94-002, Battery Size and Voltage Drop Calculations for Station Batteries 3A, 3B, 4A, 4B and Spare, Rev. 8
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52.1000.1106, 480V EDG Setting Calculation, Rev. 0
52.1000.1107, 480V Auto Transfer Switch Setting Calculation, Rev. 1
5177-265-EG-22, Breaker/Fuse Coordination Study Calculation, Rev. 6
18712-115-E-02, Spare Station Battery System Short Circuit Calculation, Rev. 1
18712-473-E-01, DC Voltage Drop Calculation for Safe Shutdown Components, Rev. 1
PTN-BFJE-94-002, 3A & 3C Load Center Breaker Replacement, Rev. 7
PTN-BFJI-94-004, Pressurizer Pressure Loop Uncertainty and Methodology, Rev. 1
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CN-SEE-III-09-24 PRT Level Setpoints for the Turkey Point Units 3 and 4 Extended Power Uprate (EPU), Rev 1
CN-SGDA-09-16 Effect of 2652 NSS Extended Power Uprate on Steam Generator Model 44F Undercut Tubing at Turkey Point Units 3 & 4
CN-SGDA-09-24 Turkey Point Units 3 & 4 ATHOS Thermal-Hydraulic Analysis of Model 44F Steam Generators to Support the Extended Uprate Program (NSSS POWER 2652 MWT)
CN-SGDA-09-26 The Effect of the Turkey Point Unit 3&4 Extended Power Uprate (EPU) on Steam Generator Flow Induced Vibration (FIV) AT A NSSS POWER OF 2652 MWT
CN-SGDA-09-3 Turkey Point Units 3 & 4 Model 44F Steam Generator Secondary Side Fluid Velocities to Support the Extended Power Uprate Program (2652 NSSS MWT)
CN-SGDA-09-8 Turkey Point Units 3 & 4 Replacement Steam Generator GENF Computer Code Models & Thermal-Hydraulic Data
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PTN-BFSM-11-023_003 AOV Program – Main Feedwater Bypass Valve/Actuator Capability for EPU Conditions, Revision 3

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PTN-ENG-SEES-11-03, LAR evaluation TS SR 4.8.2.1

Design Basis Documents
5610-075-DB-001, Auxiliary Feedwater System, dated 04/17/2013
5610-075-DB-002, Component Design Requirements AFW System, dated 04/17/2013
5610-000-DB-004.18, Accident Analysis – Module 18.0, Revised 11/04/13
Lesson Package No. 6900161, Security Systems CAT 600, dated 4/8/8
5610-019-DB-001 Intake Cooling Water System Design Basis document, dated 4/17/2013
5610-019-DB-002 Component Design Requirements Intake Cooling Water System, dated 4/17/2013
5610-057-DB-001 Normal Containment Cooling System Design Basis document, dated 4/17/2013
5610-057-DB-002 Component Design Requirements Normal Containment Cooling System, dated 4/17/2013
5610-062-DB-001 Safety Injection System Design Basis document, dated 4/17/2013
5610-062-DB-002 Component Design Requirements Safety Injection System, dated 4/17/2013

Action Requests (ARs)

01846678	01871783	01942622	01895837
01867175	01855077	01943425	01905090
01887535	01855078	01943938	01913036
00407433	01857325	01943697	01913062
01742937	01873376	01944453	01927356
01904700	01873377	01945532	01931750
01721870	01882322	00420370	01922376
01743299	01890475	00482952	01932814
01891584	01891089	01906055	01937029
01701116	01897621	01636133	01932107
01941107	01918236	00584728	01930745
00432243	01921329	01704899	01938191
00403568	01930755	01858803	01906641
01893303	01931402	00471937	
01888428	01886934	00473888	
	00425896	01876723	

Work Orders
40147558-01, Unit 3 RWST Level A, dated 10/30/2012
40155029-01, Unit 3 RWST Level B, dated 10/29/2012
40186636-01, NRC CDBI Breaker Testing, 4P21-1, dated 03/22/2013
40255959-01, CST Level Indicator LI-3-6384A, Erratic Indication, dated 9/30/2013
37003886 01, MOV-3-1404 Handwheel Spinning, dated 05/06/12
40058621 01, MOV-3-1405 Grease Insp/Stem Lube, dated 08/16/11
40064886 01, CV-3-2816: Calibrate AOV ACT/ACCESS, dated 08/17/12
40064886 02, CV-3-2816: Calibrate AOV ACT/ACCESS, dated 08/17/12
40073179 01, MOV-3-1403 Grease Insp/Stem Lube, dated 11/23/11
40175844 01, CV-3-2816 Indicates Open on DCS when Closed, dated 08/01/12
30021284-01, 125 VDC 1800 AMP/HR (3A) Station Battery, dated 6/11/1
31000632-01, 125 VDC 1200 AMP/HR (4A) Station Battery, dated 5/31/1

31017088-01, 125 VDC 1200 AMP/HR (4A) Station Battery, dated 7/29/2
35002933-01, Y20 Security UPS Troubleshoot/Restore, dated 4/4/12
35005774-01, Replace T803 and L804 of the UPS, dated 7/17/13
35012149-01, 125 VDC 1800 AMP/HR (4B) Station Battery, dated 12/13/5
35018313-01, 125 VDC 1800 AMP/HR (3A) Station Battery, dated 2/17/6
36001371-01, 125 VDC 1200 AMP/HR (3B) Station Battery, dated 8/14/6
36001384-01, 400 AMP/50 KW (3A1) Static Battery Charger Maintenance, dated 6/5/7
36001455-01, 4D25-Replacement Battery Charger Subcomponents, dated 11/24/10
37005356-01, D38 Security Battery Charger Inspection, dated 7/1/8
38015776-01, T.S. 3B1 Battery Charger Inspection/Load Test, dated 5/15/9
38016979-01, T.S. 3B2 Battery Charger Inspection/Load Test, dated 12/1/9
38017327-01, T.S. 4A1 Battery Charger Inspection/Load Test, dated 6/6/9
38020212-01, T.S. 3A2 Battery Charger Inspection/Load Test, dated 10/7/9
38020229-01, T.S. 4A2 Battery Charger Inspection/Load Test, dated 1/22/10
38027879-01, T.S. 4B2 Battery Charger Inspection/Load Test, dated 3/18/10
39004337-01, T.S. 4B1 Battery Charger Inspection/Load Test, dated 12/30/9
39005472-01, 125 VDC 1200 AMP/HR (4A) Station Battery, dated 2/15/10
39013132-01, T.S. 3A1 Battery Charger Inspection/Load Test, dated 3/30/10
39013164-01, 125 VDC 1200 AMP/HR (3B) Station Battery, dated 7/6/10
39013208-01, 125 VDC 1800 AMP/HR (3A) Station Battery, dated 6/28/10
39019015-01, 125 VDC 1800 AMP/HR (4B) Station Battery, dated 3/29/10
39021251-01, 125 VDC 1800 AMP/HR (3A) Station Battery, dated 6/28/10
39023012-01, T.S. 3B1 Battery Charger Inspection/Load Test, dated 1/21/11
40001642-01, T.S. 4A1 Battery Charger Inspection/Load Test, dated 11/21/10
40005660-01, D38 Security Battery Charger Inspection, dated 8/6/11
40014742-01, 4D02-Replacement Battery Charger Subcomponents, dated 7/17/11
40014761-01, 3D02A-Replacement Battery Charger Subcomponents, dated 2/2/11
40035946-01, T.S. 4A Battery Service Factor Test, dated 12/18/11
40044854-01, T.S. 4A2 Battery Charger Inspection/Load Test, dated 8/6/11
40051249-01, T.S. 3B2 Battery Charger Inspection/Load Test, dated 6/17/11
40053196-01, 4D02A-Replacement Battery Charger Subcomponents, dated 6/13/13
40058555-01, CAT 600 Security Diesel Three year PM, dated 7/30/11
40058622-01, T.S. 4B Battery Service Factor Test, dated 10/14/11
40059806-01, T.S. 3A1 Battery Charger Inspection/Load Test, dated 7/21/11
40066107-01, T.S. 4B2 Battery Charger Inspection/Load Test, dated 9/1/11
40079103-01, T.S. 3B Battery Service Factor Test, dated 11/2/11
40081837-01, T.S. 3A Battery Service Factor Test, dated 2/18/12
40084961-01, T.S. 3B Battery Service Factor Test, dated 11/3/11
40107967-01, T.S. 3B1 Battery Charger Inspection/Load Test, dated 9/26/12
40111364-01, T.S. 4A1 Battery Charger Inspection/Load Test, dated 8/25/12
40116782-01, CAT 600 Security Diesel Annual PM, dated 11/3/12
40120949-01, CAT 600 Security Diesel 12 month PM, dated 11/3/12
40121634-01, T.S. 3B Battery Accelerated Performance Test, dated 1/29/13
40122969-01, T.S. 3A2 Battery Charger Inspection/Load Test, dated 10/4/12
40145534-01, T.S. 4A2 Battery Charger Inspection/Load Test, dated 5/11/13
40152555-01, T.S. 3B2 Battery Charger Inspection/Load Test, dated 2/1/13
40155720-01, T.S. 4B Battery Service Factor Test, dated 7/17/13
40155721-01, T.S. 4B1 Battery Charger Inspection/Load Test, dated 4/3/13
40162273-01, T.S. 3A1 Battery Charger Inspection/Load Test, dated 4/12/13
40181441-01, T.S. 3A Battery Service Factor Test, dated 6/27/13

40185174-01, T.S. 3B Battery Service Factor Test, dated 8/6/13
40189856-01, T.S. 4A Station Battery Quarterly, dated 6/9/13
40194281-01, T.S. 4A Battery 60 month Performance Test, dated 9/16/13
40199307-01, T.S. 3B Station Battery Quarterly, dated 7/4/13
40209643-01, T.S. 4A Station Battery Quarterly, dated 8/27/13
40211206-01, Y20 Security UPS, dated 07/16/13
40214144-01, T.S. 3A Station Battery Quarterly, dated 9/9/13
40219590-01, T.S. 3B Station Battery Quarterly, dated 9/25/13
40226189-01, T.S. 4A Station Battery Quarterly, dated 11/12/13
40226217-01, T.S. 3A Station Battery Quarterly, dated 12/3/13
40226218-01, T.S. 3B Station Battery Quarterly, dated 12/30/13
40226219-01, T.S. 3A Station Battery Weekly, dated 12/30/13
40226220-01, T.S. 3A Station Battery Weekly, dated 1/6/14
40226221-01, T.S. 3A Station Battery Weekly, dated 1/13/14
40226960-01, T.S. 4B Station Battery Weekly, dated 12/30/13
40226961-01, T.S. 4B Station Battery Weekly, dated 1/6/14
40226962-01, T.S. 4B Station Battery Weekly, dated 1/13/14
40226972-01, T.S. 4A Station Battery Weekly, dated 12/30/13
40226973-01, T.S. 4A Station Battery Weekly, dated 1/6/14
40226974-01, T.S. 4A Station Battery Weekly, dated 1/13/14
40226984-01, T.S. 3B Station Battery Weekly, dated 12/30/13
40226985-01, T.S. 3B Station Battery Weekly, dated 1/6/14
40226986-01, T.S. 3B Station Battery Weekly, dated 1/13/14
40257273-01, T.S. 4B Battery Service Factor Test, dated 8/15/13
40257273-01, T.S. 4B Battery Service Factor Test, dated 8/15/13
40218133-01, Spare Battery Cells Monthly Inspection, dated 10/4/13
40223429-01, Spare Battery Cells Monthly Inspection, dated 11/1/13
39020292-01, T. S. 125 VDC 1945 AMP/HR Spare Station Battery 60 Months Capacity Test, dated 3/11/10
40061755-01, T.S. D52 Spare Battery 18 Months Service Factor Test, dated 9/20/11
40166386-01, T.S. D52 Spare Battery 18 Months Service Factor Test, dated 7/24/13
40191216-01, T.S. D52 Spare Battery Quarterly Surveillance, dated 6/14/13
40211090-01, T.S. D52 Spare Battery Quarterly Surveillance, dated 8/31/13
40226155-01, T.S. D52 Spare Battery Quarterly Surveillance, dated 11/20/13
40234001-01, T.S. D52 Spare Battery Weekly Surveillance, dated 1/24/14
40235863-01, T.S. D52 Spare Battery Weekly Surveillance, dated 2/3/14
40237248-01, T.S. D52 Spare Battery Weekly Surveillance, dated 2/10/14
3801214101, U4 S/G Level (Wide Range) LT-477,487,497 CAL, dated 10/10/10
3802394601, U4 S/G Level (Wide Range) Transmitter Cal's LT-477,487,497, dated 11/5/09
3901529901, U4 S/G Level ALT LT-478,488,498 Loop Cal's, dated 10/8/10
4001734101, U4 S/G Level ALT LT-478,488,498 Loop Cal's, dated 4/3/11
4003348401, Level Transmitter to Steam Generator A LT-3-474, dated 3/22/12
4003348402, Level Transmitter to Steam Generator B LT-3-484, dated 3/22/12
4003348403, Level Transmitter to Steam Generator C LT-3-494, dated 3/22/12
4003348501, Level Transmitter to Steam Generator A LT-3-475, dated 3/22/12
4003348503, Level Transmitter to Steam Generator C LT-3-495, dated 3/22/12
4003349301, S/G A Level Transmitter LT-3-476, dated 5/14/12
4003349302, S/G B Level Transmitter LT-3-486, dated 3/23/12
4003349305, S/G C Level Transmitter LT-3-496, dated 3/23/12
4003360901, U4 S/G A Level Transmitter LT-4-474, dated 11/27/12
4003360902, U4 S/G B Level Transmitter LT-4-484, dated 11/27/12

4003361001, U4 S/G A Level Transmitter LT-4-475, dated 11/27/12
4003361002, U4 S/G B Level Transmitter LT-4-485, dated 11/27/12
4003361003, U4 S/G C Level Transmitter LT-4-495, dated 11/27/12
4003361101, U4 S/G A Alternate Level Transmitter LT-4-478, dated 11/29/12
4004859701, U4 S/G A Level L-4-474 Hagan Racks CAL, dated 7/26/11
4004859801, U4 S/G B Level L-4-484 Hagan Rack CAL, dated 7/26/11
4004859901, U4 S/G C Level L-4-494 Hagan Racks CAL, dated 7/26/11
4005001601, U4 S/G A Level L-4-475 Hagan Racks CAL, dated 9/7/11
4005001701, U4 S/G B Level L-4-485 Hagan Racks CAL, dated 9/7/11
4005001801, U4 S/G C Level L-4-495 Hagan Racks CAL, dated 9/7/11
4005001901, U4 S/G B Level L-4-486 Hagan Racks CAL, dated 9/6/11
4005002001, U4 S/G A Level L-4-476 Hagan Racks CAL, dated 9/6/11
4005002101, U4 S/G C Level L-4-496 Hagan Racks CAL, dated 9/6/11
4006474601, Level Transmitter to Steam Generator A LT-3-474, dated 2/22/13
4006474602, Level Transmitter to Steam Generator B LT-3-484, dated 2/22/13
4006474603, Level Transmitter to Steam Generator C LT-3-494, dated 2/22/13
4006474701, Level Transmitter to Steam Generator A LT-3-475, dated 2/22/13
4006474702, Level Transmitter to Steam Generator B LT-3-485, dated 2/22/13
4006475401, Level Transmitter to Steam Generator A LT-3-476, dated 2/23/13
4006475402, Level Transmitter to Steam Generator B LT-3-486, dated 2/23/13
4006475403, Level Transmitter to Steam Generator C LT-3-496, dated 2/23/13
4006540001, Level Transmitter to Steam Generator A LT-3-476, dated 4/2/11
4007240101, S/G B Level L-3-484 Hagan Racks CAL, dated 11/10/11
4007260701, S/G C Level L-3-494 Hagan Racks CAL, dated 11/10/11
4007260801, S/G A Level L-3-475 Hagan Racks CAL, dated 11/17/11
4007260901, S/G B Level L-3-485 Hagan Racks CAL, dated 11/17/11
4007261001, S/G C Level L-3-495 Hagan Racks CAL, dated 11/17/11
4007261101, S/G A Level L-3-476 Hagan Racks CAL, dated 11/9/11
4007274401, S/G C Level L-3-496 Hagan Racks CAL, dated 11/9/11
4007274501, S/G B Level L-3-486 Hagan Racks CAL, dated 11/9/11
4007893401, U-4 S/G A Level Transmitter LT-4-474, dated 11/29/12
4008676301, U-4 S/G A Level Transmitter LT-4-476, dated 11/29/12
4008676302, U-4 S/G B Level Transmitter LT-4-486, dated 11/29/12
4008676303, U-4 S/G C Level Transmitter LT-4-496, dated 11/29/12
4010050001, U-4 S/G A Level Transmitter LT-4-477, 487, 497, dated 12/31/12
4015967803, U4 L-4-476 SG A Upgrade Hagan Modules to NUS, dated 12/13/12
4015967903, U4 L-4-486 SG B Upgrade Hagan Modules to NUS, dated 12/13/12
4015968003, U4 L-4-486 SG C Upgrade Hagan Modules to NUS, dated 12/13/12
4016665115, U4 EPU-Westinghouse Setpoint Scaling Revision SG A LC-4-474, dated 1/28/13
4016665118, U4 EPU-Westinghouse Setpoint Scaling Revision SG B LC-4-484, dated 1/28/13
4016665121, U4 EPU-Westinghouse Setpoint Scaling Revision SG C LC-4-494, dated 1/28/13
4017213801, U4 S/G A Level L-4-475 Hagan Racks CAL, dated 7/25/13
4017213901, U4 S/G B Level L-4-485 Hagan Racks CAL, dated 7/25/13
4017214001, U4 S/G C Level L-4-495 Hagan Racks CAL, dated 7/25/13
4018004801, S/G C Level L-3-494 Hagan Racks CAL, dated 7/29/13
4018651201, S/G A Level L-3-474 Hagan Racks CAL, dated 7/29/13
4018896501, S/G C Level L-3-496 Hagan Racks CAL, dated 5/7/13
4018896601, S/G B Level L-3-486 Hagan Racks CAL, dated 5/7/13
4018896701, S/G B Level L-3-485 Hagan Racks CAL, dated 7/5/13
4018896701, S/G B Level L-3-485 Hagan Racks CAL, dated 7/5/13
4018896801, S/G A Level L-3-476 Hagan Racks CAL, dated 5/7/13

4018982601, U-4 S/G A Level Transmitter LT-4-474, dated 3/9/13
4018982602, U-4 S/G B Level Transmitter LT-4-484, dated 3/9/13
4018982603, U-4 S/G C Level Transmitter LT-4-494, dated 3/10/13
4018982701, U-4 S/G A Level Transmitter LT-4-475, dated 3/11/13
4018982702, U-4 S/G B Level Transmitter LT-4-485, dated 3/12/13
4018982703, U-4 S/G C Level Transmitter LT-4-495, dated 3/12/13
4018982902, U-4 S/G B Level Transmitter LT-4-486, dated 3/13/13
4018982903, U-4 S/G C Level Transmitter LT-4-496, dated 3/13/13
4019067501, S/G B Level L-3-484 Hagan Racks CAL, dated 7/19/13
4019077301, U4 S/G A Level L-4-475 Hagan Racks CAL, dated 7/9/13
4019077401, U4 S/G C Level L-4-495 Hagan Racks CAL, dated 7/12/13
4020127408, S/G B Level Protection F-3-485, 486, dated 8/13/13
4020963701, U4 S/G A Level Protection F-4-474, 477, dated 8/19/13
4021258706, U4 S/G C Level Protection F-4-494, 497, dated 7/18/13
4021258707, U4 S/G A Level Protection F-4-475, 476, dated 7/20/13
4021258710, U4 S/G B Level Protection F-4-485, 486, dated 10/28/13
4021651501, Level Transmitter to Steam Generator C LT-3-495, dated 2/13/13
4022612101, U4 S/G A Level Protection F-4-474, 477, dated 11/26/13
4025959301, U4 S/G B Level Protection F-4-484, 487, dated 11/5/13
4025959601, U4 S/G C Level Protection F-4-494, 497, dated 10/14/13
4025959701, S/G C Level Protection F-3-494, 497, dated 12/18/13
4025961101, S/G A Level Protection F-3-475, 476, dated 10/21/13
4025961201, S/G A Level Protection F-3-475, 476, dated 1/22/14
4025961401, S/G B Level Protection F-3-485, 486, dated 11/26/13
4025961701, S/G C Level Protection F-3-495, 496, dated 10/9/13
4025961901, S/G C Level Protection F-3-495, 496, dated 12/17/13
4025965501, S/G A Level Protection F-3-474, 477, dated 11/7/13
4026082601, S/G A Level Protection F-3-474, 477, dated 1/27/14
4025970501, S/G B Level Protection F-3-484, 487, dated 1/2/14
4026082301, U4 S/G Level Protection P-4-446, F-4-474, 484, 494 Prot Chan III, dated 11/7/13
4026082601, U4 S/G C Level Protection F-4-494, 497, dated 11/8/13
4026082901, U4 S/G A Level Protection F-4-475, 476, dated 11/8/13
4026083501, U4 S/G C Level Protection F-4-495, 496, dated 11/8/13
4026083601, U4 S/G C Level Protection F-4-495, 496, dated 1/7/14
4026083801, U4 S/G B Level Protection F-4-485, 486, dated 12/26/13
4026084401, U4 S/G B Level Protection F-4-484, 487, dated 10/21/13
4026084501, U4 S/G B Level Protection F-4-484, 487, dated 12/26/13
4024632601, Standby SGF Oil Sample, dated 8/16/13
4024497001, Standby Feedwater Pump Tripped when started, dated 11/8/13
4022620601, Standby SGF Oil Sample, dated 11/25/13
4022613301, Inspect Standby SGF Pump, dated 10/16/13
4021107101, T.S U3 STM Break Protection Set III, dated 1/4/14
4021186601, T.S. STM Brk Protection IV Loop Cals, dated 12/15/13
4021465101, T.S U3 Steam Brk Protection Inst Ch III, dated 12/14/13
4023391801, T.S. T-3-412, RCS Temp Channel I, dated 1/13/14
4023973901, T.S. P-4-468/474/484/494, Steam Break Prot. Inst Ch II Cal, dated 1/29/14
4024616401, T.S. T-3-432, RCS Loop C Prot. Set III, dated 1/26/14
39022011, U3 10 Year Tank Internal RWST Inspection, dated 10/18/10
39022012, U4 10 Year Tank Internal RWST Inspection, dated 4/14/11
4009812101, U3 RWST, Prep and Coat Interior, dated 02/14/12
3902591301, 3TI, Coat Tank & Assoc Eqpt & Piping, dated 12/17/10

3902201201, Perform internal tank inspection, dated 02/24/11
3902201204, 4t1, RWST contingent internal coating repair, dated 04/03/11
3902591501, 4t1, RWST coat tank & associated equipment & piping, dated 12/14/10
4013399201, 4t1 RWST perform 10yr tank inspection, dated 01/27/12

Miscellaneous
V000862, 7.5 KVA Inverter Vendor Manual, Rev. 2
V000949, AirPax Circuit Breakers Vendor Manual, Rev. 0
EC 281044, Final Temperature of DC Starter Panel, Rev. 0
TR 23343-1, Test Requirement for the SSC Safety-Related 7.5 KVA Inverters
List of Vital AC and DC Breakers scheduled for PM in OT3-27 Frozen Scope, dated 2/13/2014
Plant Curve Book, Section 6, Figure 23, Condensate Storage Tank, dated 1/6/2001
I.L. 14567E, Instructions for Cutler Hammer Thermal Overload Relay, Rev. E
02192-TR-075, Auxiliary Feedwater Valve Basis, Rev. 0
Common Cause Eval 01904700, CCE of Maintenance Mispositions, dated 10/23/13
EC-242095, Justification of Increased AFW Pump Performance, Rev. 0
EC-275011, Design Change Package – AFW Pumps B, C, and Spare Refurbishment, Rev. 1
EC-281061, 2014 NRC CDBI: Supporting Computation for Request #362, Rev. 0
EQ Package 17.2, Valve Actuators, Rev. 12
EQ Package 17.3, Valve Actuators, Rev. 6
EQ Package 35.0, Electropneumatic Transducers, Rev. 9
NRC Letter, Seismic Qualification of Auxiliary Feedwater System, dated 08/25/83
Operability Assessment 029-93, NASL-93-004, dated 5/13/93
POD 01742937, Recommend Operability Assessment for Unit 4 AFW FCVs, Rev. 0
System Health Report 062, Safety Injection 10/01/13-12/31/13, dated 01/23/14
System Health Report 075, Auxiliary Feedwater 10/01/13-12/31/13, dated 01/17/14
UFSAR Section 14.2.4, Steam Generator Tube Rupture, dated 04/17/13
VTM V000253, Electropneumatic Transducer Instructions, Rev. 3
3D23-080511, Predictive Maintenance Thermography Inspection of 3D23-125V DC, dated 8/5/11
3D23-082813, Predictive Maintenance Thermography Inspection of 3D23-125V DC, dated 8/28/13
3D23-092512, Predictive Maintenance Thermography Inspection of 3D23-125V DC, dated 9/25/12
V000788, Caterpillar 600 KW Diesel Generator and Accessories, 4/15/8
V000420, Type NCX-Lead Calcium Battery & Battery Rack Installation Instruction, Rev. 6
AA550, Static Battery Charger Vendor Manual, Rev. 7
V000434, 75KVA 130VDC UPS Parts Lists Breaker Data, Operation & Maintenance Instructions, Rev. 6
V000757, Ferro resonant UPS Technical Manual, Rev. 1
V000468, 60 NCX-27 on Two Tier Racks (seismic), Rev. 9
EC 242356, Security Battery (D37) Replacement Upgrade, Rev. 0
V000020, Installation/Maintenance Instructions for ITE Low Voltage Power Circuit Breakers, Rev. 5
EC-246935 Main Feedwater Pump Rotating Assembly Replacement – Extended Power Uprate, Rev. 3
EC-246936 Main Feedwater Pump Rotating Assembly Replacement – Extended Power Uprate, Rev. 2
EC-247067 Extended Power Uprate Turkey Point Unit 3 Replacement of Main Steam Flow Venturi, Rev. 0

EC-247068 Extended Power Uprate Turkey Point Unit 4 Replacement of Main Steam Flow Venturi, Rev. 0
EC-246852 Extended Power Uprate – Turkey Point Unit 3 – BOP Instrumentation Controls, Rev. 0
EC-247008 PCM-09139 EPU LAR Umbrella DOC Only PC/M, Rev. 5
EC-246870 Design Change Package Description: Feedwater Regulating Valve Upgrade, Rev. 6
EC-246879 Design Change Package Description: Feedwater Regulating Valve Upgrade, Rev. 4
EC-249147 EPU Modification of Pipe Support Mark No. MK-111, Rev. 16
FHFPCD4-1 Failure to restart MFW following a loss of MFW or SI actuation, Basic Event Summary
GHFPBLFEEDL Failure to initiate F&B cooling after loss FW, trip on low SG level, Basic Event Summary
Loss of Vacuum/ Dropped Rod/ Loss of 3O09/ATWS Simulator Exercise Guide, dated 10/6/12
Steam Generator Feedback/Loss of All AC Simulator Exercise Guide, dated 10/26/12
PTN-ENG-SENS-11-027 NRC RAI Regarding EPU LAR 205 and Unit 3 Mechanical and Civil Engineering Branch (EMCB) Issues Commitment Responses, Rev. 1
EP-PTN-12-1059 Evaluation of 2 Second Lag to Feedwater and Steam Flow Signals, Rev. 0
Simulator Evaluation Report SEG #1 7502083, dated 10/30/2012
SSW-PTN-2012-001145 Waterhammer Assessment of the Unit 3 Main Feedwater Control Valve Bypass Line, dated July 27, 2012
Environmental Qualification Documentation Package 1001, Rev. 24
PTN-ENG-SEMS-09-049 Moisture Carryover Predictions for EPU Conditions Using Moisture Carryover Test Results, Rev. 0
NWT 856 STEAM GENERATOR MOISTURE CARRYOVER MEASUREMENTS AT TURKEY POINT 3, Rev. 1
FPL-10-268 (TP-EPU-0282) Conclusions from Westinghouse Assessments for MCO Greater than 0.25%, dated August 9, 2010
129153-R-P-00001 Piping Vibration Monitoring Plan for Turkey Point Unit 3 Extended Power Uprate, Rev 5
FPL-09-506 (TP-EPU-0224) Summary of Issues with Steam Generator Moisture Carryover Above 0.25%, dated December 14, 2009
SEI-FPL-PTN 0131 Unit Moisture Carry-over conditions relating to unit maintenance, dated January 14, 2010
Giambusso Letter Response, dated June 21,1973
WCAP-17091-P H*: Alternate Repair Criteria for the Tubesheet Expansion Region in Steam Generators with Hydraulically Expanded Tubes (Model 44F)
EC-246918 Normal Containment Cooler Replacement, Rev. 1
JPN-PTP-SEMJ-89-056 Response to NRC Bulletin 88-04 Potential loss of Safety related Pumps, Rev. 0
PTN-ENG-LRAM-00-0064, Field Erected Tanks Internal Inspection
MN-3.11 Appendix D, Specification Piping Class Sheets for CVC, SS, WD, RC, SI,
RHR, and SF Systems, Rev. 11
SSGFW Pump System Health Report, 7/13 to 9/13
SSGFW Pump System Health Report, 10/13 to 12/13
V00019A, SSGFW Vendor Manual, Rev. 5
LER 2014-001-00, Missed Surveillance Test Cause PT-3-495 to be Inoperable
STP Training Roster
U3 HHSI System Health Report 2011, 2012, 2013
U4 HHSI System Health Report 2011, 2012, 2013

Corrective Action Documents Written Due to this Inspection

1936964	Unknown Basis for Settings on Inverter Voltage and Frequency Meter Relays
1937194	Drawing Discrepancy Added with Revised UAT Transformer Data
1938549	DC Starter Cable Size Discrepancy between Drawing and Calculation
1938806	Temporary EPU 480 V LC's and Panels still energized
1939197	Uncontrolled/Undefined Markers on Control Board 4 kV Indicators
1940841	Undocumented Auto Return Voltage for Static Transfer Switch
1940932	PME-003.31 MCCB PM Procedure Missing GE MCCBs
1940955	PME-003.3 Vital Inverter PM MCCB Maintenance Use
1941577	Procedure Fails to Record Insulation Resistance Readings
1942234	Equipment Specification for Safety-Related Inverters Not Available
1942694	Inaccurate 480 V Accept Crit. in Surveillance Procedure OSP-205.1
1943078	NAMS Equipment Model Does Not Agree with Drawing
1943509	U3 Power Supply Referenced on U4 Drawing Should be U4
1944128	SR 4.8.3.1 - 120 V Instrument Power Voltage Not Verified
1936529	D862 Cable Conduit Loose & Hanging in Doorway (Sec Battery Room)
1936608	Calc PTN-BFJE-92-032 Affected by Thermal OLs in New DC Starter
1937008	CDBI Identified Issue. Dried Electrolyte on 3A Battery
1937065	CDBI Issue. Minor Electrolyte Residue on Cells
1937066	CDBI Issue. Minor Electrolyte Residue on Cells
1937353	CDBI - Design Bases and Tech Specs for AFW Steam Supply
1937365	2014 CDBI Self-Assessment, OE from Wolf Creek
1939910	2014 CDBI - Discrepancy Between UFSAR & DBD
1940217	NRC CDBI_Create New PMs for CAT 600 Overcurrent Relays
1940255	2014 CDBI_Clarification to Section 14.2.4 of the UFSAR
1940744	PMCR 003 - New PMS Undervoltage Relays in Vital DC Buses
1940802	EC-051 Calc Station Battery Charger Sizing Calc
1940841	CDBI Query_What Inverter Voltage Causes Re-transfer
1940927	PMCR, Sys 100 - Create New PMs for 327H-ST1-2 Relays
1941107	CDBI - Drawing Discrepancies for 5613(4)-E-1605
1941182	CDBI - Wrong Pipe Class on RHR P&IDs
1942618	EPU Calculation CN-CPS-08-77 Inadequate
1942622	Calculations Lack Cross-Reference
1943321	2014 CDBI - Operator Action to Isolate AFW
1943425	CDBI 2014 - CDBI Simulator Demonstration SBO Tie
1943622	NRC CDBI - Create New Procedure for Inspection of Security UPS
1943697	CDBI 2014 Improvement Opportunity for Time Critical Actions
1943865	CDBI 2014 - Procedure Improvement to 3-4-ONOP-041.7
1943976	2014 CDBI - Design Basis for Shutdown LOCA
1944031	CDBI Issue - AR 1888428 Has No Assignments to Correct Issue
1944378	2014 CDBI Audit - IST Program Applicability to AFW
585910	Door 862 (8SDG862) Frame is Rusted and Locking Pins Sticking