



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
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September 30, 2021

Mr. Bob Coffy  
Executive Vice President,  
Nuclear Division and Chief Nuclear Officer  
Florida Power & Light Company  
Mail Stop: EX/JB  
700 Universe Blvd.  
Juno Beach, FL 33408

**SUBJECT: TURKEY POINT NUCLEAR GENERATING STATION – 95001  
SUPPLEMENTAL INSPECTION REPORT 05000250/2021040 AND  
05000251/2021040**

Dear Mr. Coffy:

On August 20, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection using Inspection Procedure 95001, "Supplemental Inspection Response to Action Matrix Column 2 (Regulatory Response) Inputs." On August 19, 2021, the NRC inspection team discussed the results of this inspection and the implementation of your corrective actions with you and other members of your staff.

The NRC performed this inspection to review your station's actions in response to a White Unplanned Scrams per 7000 Critical Hours performance indicator, which you reported on March 31, 2021. On May 20, 2021, you informed the NRC that your station was ready for the supplemental inspection.

The NRC determined that your staff's evaluation identified the cause of the performance indicator. Specifically, Florida Power & Light Company (FPL) appropriately identified the root and contributing causes for all four reactor trips that were an input into the white performance indicator.

Based on the results of this inspection, the NRC concluded that FPL performed a comprehensive evaluation of the White performance indicator and the inspection objectives were met. The NRC has determined that completed or planned corrective actions were sufficient to address the performance that led to the White performance indicator.

No findings or violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

***/RA/***

David E. Dumbacher, Chief  
Reactor Projects Branch 3  
Division of Reactor Projects

Docket Nos. 05000250 and 05000251  
License Nos. DPR-31 and DPR-41

Enclosure:  
As stated

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SUBJECT: TURKEY POINT NUCLEAR GENERATING STATION – 95001  
SUPPLEMENTAL INSPECTION REPORT 05000250/2021040 AND  
05000251/2021040 – DATED September 30, 2021

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DATE	9/30/2021	9/30/2021	9/30/2021		

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 05000250 and 05000251

License Numbers: DPR-31 and DPR-41

Report Numbers: 05000250/2021040 and 05000251/2021040

Enterprise Identifier: I-2021-040-0002

Licensee: Florida Power & Light Company

Facility: Turkey Point Nuclear Generating Station

Location: Homestead, FL 33035

Inspection Dates: August 16, 2021 to August 20, 2021

Inspectors: P. Carman, Senior Reactor Inspector  
A. Wilson, Senior Project Engineer (Team Leader)

Approved By: David E. Dumbacher, Chief  
Reactor Projects Branch 3  
Division of Reactor Projects

Enclosure

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a 95001 supplemental inspection at Turkey Point Nuclear Generating Station, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

### **List of Findings and Violations**

No findings or violations of more than minor significance were identified.

### **Additional Tracking Items**

None.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

## OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

### 95001 - Supplemental Inspection Response to Action Matrix Column 2 (Regulatory Response) Inputs

The inspectors reviewed and selectively challenged aspects of the licensee's problem identification, causal analysis, and corrective actions in response to four reactor trips on Unit 3 that caused FPL to cross the green-to-white threshold for the Unplanned Scrams per 7000 Critical Hours performance indicator. Notification of the NRC's updated assessment was documented in Inspection Report 05000250/2021001 and 0500251/2021001 and Assessment Follow-Up Letter (ADAMS Accession No. ML21127A186).

### Supplemental Inspection Response to Action Matrix Column 2 (Regulatory Response) Inputs (1 Sample)

- (1) From August 16, to August 20, 2021, the inspectors conducted an onsite review to verify all aspects of the inspection procedure were met.

## INSPECTION RESULTS

Assessment	95001
1. <u>Problem Identification.</u>	
a. <u>Identification.</u> Each of the four unplanned scrams were appropriately categorized by the licensee as self-revealing events.	
1) The first trip, manually initiated by plant operators, occurred on August 17, 2020, at approximately 2112 from approximately 91 percent power in response to rising steam generator (SG) water levels that approached the automatic turbine trip setpoint. Operators were unable to correct the increasing SG water level transient which occurred following an automatic turbine runback initiated by the inadvertent opening of the low-pressure heater bypass valve (CV-3-2011).	
2) The second trip was automatically initiated by the plant's reactor protection system (RPS) and occurred on August 19, 2020, at 1324. Specifically, the source range nuclear instrument (SRNI), N31, sensed a high neutron flux condition and initiated the trip during reactor startup.	
3) The third trip, manually initiated by plant operators, occurred on August 20, 2020,	

at 2358 from approximately 34 percent power in response to the loss of the single operating 3B steam generator feedwater pump (SGFP). The 3B SGFP tripped on low suction pressure because the recirculation to pump suction flow control valve (CV-3-1414), the recirculation to condenser control valves (CV-3-1417 and CV-3-1418), and their master controller were not in automatic and operator action to manually close the recirculation valves created a low suction pressure condition for the pump.

4) The fourth trip was automatically initiated by RPS on March 1, 2021, at 1108 during restoration from routine testing of the RPS. An incorrect position of the reactor trip breaker was input into the logic for the backup turbine trip relay, which tripped the turbine and by design, initiated RPS Train-A and Train-B reactor trip signals.

b. Exposure Time. In each of the four root cause analyses, the licensee appropriately addressed the exposure time for each issue.

- For root cause evaluation (RCE) 2365716, the licensee determined that the root cause of the event leading to the manual reactor trip was the failure to include inadvertent opening of CV-3-2011 in the design analysis of the turbine control system (TCS) modification which was approved on December 22, 2011. The design analysis included a turbine runback due to CV-3-2011 opening in response to a low-pressure condition at the suction of the SGFPs; however, the analysis did not include the inadvertent opening of CV-3-2011. The implementation of this modification on Unit 3 occurred in July of 2012 and April of 2013 for Unit 4.
- For RCE 2365970, the licensee's RCE determined that the unit supervisor and reactor operator performing the startup had knowledge gaps and an incorrect mental model for conducting a reactor startup below the point of adding heat (POAH). The RCE determined that it was difficult to estimate the length of time that a knowledge gap existed for each individual. The licensee acknowledged that the knowledge gaps may have gone undetected dating back to when each operator obtained their initial license. The unit supervisor was licensed in September 2019 and the reactor operator was licensed in May 2012.
- For RCE 2366158, the licensee determined that on August 20, 2020, operators moved Unit 3 to Mode 1 without placing the master controller for the SGFP recirculation valves in the appropriate position for the plant conditions, causing the recirculation to pump suction flow control valve and recirculation to condenser control valves to be in a position that was not appropriate for the plant conditions. When operators recognized this condition, the recirculation valves positions were adjusted creating a low suction pressure condition which tripped the 3B SGFP. The licensee determine that the master controller repositioned during the spurious opening of CV-3-2011 which led to the first trip on August 17. After the August 17 trip, the operators did not properly review lock-in annunciators and reposition components to the appropriate position. This condition remained from the trip on August 17 to the trip on August 20.
- For RCE 2385529, the licensee determined that the performance deficiency associated with an inadequate preventive maintenance procedure existed since Revision 0 of 0-PME-049.01, Reactor Trip and Trip Bypass Breaker Inspection and Maintenance, was issued in 2009.

- c. Identification Opportunities. In general, the licensee appropriately considered prior occurrences and identification opportunities.
- For RCE 2365716, the licensee determined that due to the root cause being related to the failure to include the scenario in the design analysis, this scenario was not able to be tested, and the August 17 event was the first opportunity to identify the design deficiency.
  - For RCE 2365970, the licensee the licensee did not identify any specific missed opportunities to discover the operator knowledge gaps that led to the reactor trip during plant startup.
  - For RCE 2366158, the licensee identified a missed opportunity to potentially prevent the trip on August 20, 2020. On May 8, 2018, an operator reviewed the distributed control system (DCS) and discovered that the 4A SGFP recirculation master controller was out of position in manual and had been in that condition for almost two months. As a corrective action, the annunciator response procedure, 3/4-ARP-097.CR.D was revised to add requirements for the operators to review additional DCS displays. With the revised procedure, operators had the potential to identify the incorrect master controller position and return it to the correct position during the conditions leading to the August 20, 2020 trip. The RCE stated that it was not clear that operators understood what steps of the revised procedure were required, resulting in operators ending the annunciator response procedure prior to returning the master controller to automatic. The RCE also stated that not all operations personnel received the training on the revised procedure.
  - For RCE 2385529, the licensee did not identify any specific missed opportunities for a detailed review and comparison of plant maintenance procedures and vendor guidance.
- d. Risk and Compliance. The RCEs documented the qualitative consequences of each event and the performance issue with respect to nuclear, radiological, safety culture, and industrial consequences. Based on their review, the inspectors concluded the RCEs demonstrated an understanding of significant plant consequences and compliance concerns associated with each event and the performance issue.
- For RCE 2365716, the licensee documented the risk associated with the event. The licensee identified that the feedwater regulating, steam generator, and turbine control systems were not designed to adequately respond to and prevent a reactor trip following the opening of CV-3-2011 with a low steam generator feedwater pump low suction condition. Therefore, the licensee determined the risk associated with the event was that the runback function described within the UFSAR could not be fully fulfilled. The licensee documented the consequences of the event. Specifically, that this condition increased the likelihood of a reactor trip. Based on the review, the inspectors concluded that the RCE demonstrated an understanding of significant plant consequences and compliance concerns associated with the event and performance issue.
  - For RCE 2365970, the licensee performed a post-trip review of the event. The



reactor trip event was reconstructed, analyzed and evaluated to determine the most probable cause of the trip, the proper functions of safety-related and important equipment and if any detrimental effects on the plant were caused by the trip. The post-trip review concluded that all equipment functioned properly and that there were not detrimental effects on plant equipment. Therefore, there were no adverse safety consequences related to the event.

- For RCE 2366158, the licensee determined that after the manual trip all the equipment functioned properly and there were no detrimental effects on plant equipment. The licensee determined that there were no adverse safety consequences related to the event. Based on the review, the inspectors concluded that the RCE demonstrated an understanding of significant plant consequences and compliance concerns associated with the event and performance issue.
- For RCE 2385529, the licensee identified several low-level equipment issues following the reactor trip. The licensee determined the equipment issues had no impact on environmental, radiological, or nuclear safety. In addition, there were no personnel safety issues associated with the event. Therefore, there were no adverse safety consequences related to the event.

NRC Assessment: The inspectors determined that the licensee appropriately evaluated and documented problem identification, including adequate considerations of identification credit, how long the condition had existed, missed opportunities for self-identification, and risk insights. The inspectors had the following observations:

- For RCE 2366158, the licensee identified a missed opportunity in 2018 for a similar situation when the 4A SGFP recirculation master controller was out of its normal configuration for almost 2 months. One of the corrective actions for that event was to revise 3/4-ARP-097.CR.D. This procedure was revised again as part of this RCE. The inspectors noted that while the corrective actions taken from this RCE are more robust and have received more management attention, there are common themes in the actions taken in 2018 and in this RCE, specifically procedure revision and training. The similar actions taken in 2018 were not effective to prevent the 2020 event.
- The inspectors determined that for RCE 2385529, the licensee did not explore a potential prior opportunity for identification. The RCE identified that the cell switch replacement frequency was not in accordance with the vendor manual. However, the RCE did not determine if there was an opportunity for the site to have reviewed the vendor manual and taken action when the latest revision of the manual was issued in 2011.

## 2. Causal Analysis.

- a. Methodology. For the RCEs, the licensee employed systematic, evidenced-based methodologies including, Barrier Analysis, Why Staircase, Organizational and Programmatic Affects, Safety Culture Analysis, and Event and Causal Factors Charting to gather data, identify the problem, and determine the root cause and contributing causes of the White performance issue.

- RCE 2365716 determined the root cause was that the inadvertent opening of CV-3-2011 was not modeled or evaluated as a new function or introduced failure mode as part of the Turbine Control System (TCS) design modification which was approved December 22nd, 2011. The design analysis included a turbine runback due to CV-3-2011 opening in response to a low-pressure condition at the suction of the S/G feedwater pumps. However, the inadvertent opening of CV-3-2011 under normal pump suction conditions was not analyzed, nor considered as a new failure mode.
  - RCE 2365970 determined the root cause to be reactor operator knowledge gaps and incorrect mental model for conducting a reactor startup and operating below the POAH. A contributing cause was a lack of Operator and Operations Leadership's self-awareness of proficiency gaps and procedure deficiencies.
  - RCE 2366158 determined that Operators demonstrated knowledge gaps in monitoring plant conditions and failed to recognize the collective status of the feedwater regulating valves, recirculation valves, and SGFP performance.
  - RCE 2385529 determined the root cause to be a deficiency in procedure 0-PME-049.01, in that steps for cleaning and lubricating cell switch contacts were conditional based, rather than prescriptive. This RCE listed two contributing causes: 1) Test points to detect failed contacts were not installed; and 2) The failure to follow the Westinghouse Maintenance Program Manual (MPM) cell switch maintenance and replacement frequency.
- b. Level of Detail. The inspectors determined the RCEs, in aggregate, were performed commensurate with the safety significance and complexity of the performance issue and were of sufficient detail to identify the root and contributing causes, extent of conditions, and extent of causes. The RCE teams utilized a formal cause analysis process to identify the problems and determine corrective actions. The RCEs were performed by individuals in the licensee's organization with varying levels of experience and backgrounds.
- c. Operating Experience. The inspectors determined that the licensee appropriately considered prior occurrences and operating experience.
- For RCE 2365716, the licensee accounted for prior occurrences and operating experience of similar events where failure mode evaluations incorrectly analyzed or did not consider all failures leading to latent equipment issues like the event analyzed in this RCE. The RCE determined that the primary difference between the August 17 event and similar operating experience events was that the TCS modification recognized the transient but failed to evaluate it because it was mistakenly determined that a separate transient evaluation would bound the effects of this specific scenario.
  - For RCE 2365970, the licensee determined that one external OE event involving a reactor trip during startup was similar and a precursor. However, the specific industry OE report was outside the scope of the licensee's current OE review process and it was not reasonable for the licensee to have taken any previous actions to preclude this reactor trip.

- For RCE 2366158, the licensee accounted for prior occurrences and operating experience of similar events related to feedwater pump recirculation, SGFP recirculation, and recirculation controls. The RCE identified a similar prior occurrence related to the 4A SGFP recirculation master controller, discussed in Section 1.c.
  - For RCE 2385529, the licensee included a review of internal and external Operating Experience (OE). The RCE included an appropriate consideration of prior occurrences of the problem and knowledge of prior OE.
- d. Extent of Condition and Cause. The inspectors determined that the licensee appropriately identified the extent of condition and extent of cause.
- For RCE 2365716, the licensee used the same-same, same-similar, similar-same, and similar-similar methodologies to evaluate the extent of condition and the extent of cause. The licensee's extent of condition evaluated an automatic turbine runback on an inadvertent opening of unit 4 CV-4-2011, other automatic runbacks initiated by the TCS and whether these scenarios would result in a reactor trip, the opening of CV-3/4-2011 with a low suction pressure condition at the SGFPs which would initiate a medium turbine runback, and all other TCS medium runback scenarios and the transient that occurs. The licensee's extent of cause evaluated an automatic turbine runback on an inadvertent opening of CV-3/4-2011, and other plant transients caused by changed digital systems.
  - For RCE 2365970, the licensee appropriately reviewed the event for extent of condition and extent of cause. The licensee identified two other infrequently performed evolutions that could lead to unwanted conditions if not performed correctly. Specifically, the evolution for latching and unlatching control rods and the evolution for placing and removing the residual heat removal system from service. The licensee implemented appropriate corrective actions in the form of procedural and training material updates to address the extent of cause.
  - For RCE 2366158, the licensee used the same-same, same-similar, and similar-similar methodologies to evaluate the extent of condition. The licensee's extent of condition evaluated the recirculation valves master controller in manual without locked in alarms for all SGFPs, and individual recirculation valves controller in manual without locked in alarms for all SGFP and condensate pumps. The licensee used the same-same, same-similar, similar-same, and similar-similar methodologies to evaluate the extent of cause. The licensee evaluated knowledge gaps by operators in monitoring plant conditions during up and down power evolutions and from the collective feedwater regulating valves, recirculation valves, and SGFP performance.
  - For RCE 2385529, the licensee appropriately considered whether the procedural vulnerability was applicable to other Westinghouse Type DB-50 circuit breakers installed in the plant. Corrective actions were completed to ensure that the generator field breaker and the control rod drive mechanism (CRDM) motor-generator (MG) set output breakers have maintenance strategies aligned with vendor recommendations.

- e. Safety Culture. The inspectors reviewed the safety culture components referenced in NUREG-2165, "Safety Culture Common Language," to determine if these were appropriately considered during the licensee's evaluations of the root causes, extent of conditions, and extent of causes.

NRC Assessment: The inspectors' review determined the licensee's evaluations were documented at a sufficient level of detail, included relevant operating experience, and identified the root causes, contributing causes, extent of conditions, and extent of causes of the performance issue. Additionally, the inspectors determined the licensee's RCEs appropriately considered the safety culture aspects related to each reactor trip.

### 3. Corrective Actions.

#### a. Corrective Actions to Prevent Recurrence

##### (1) Completed

- For RCE 2365716, the licensee's corrective actions to prevent recurrence (CAPRs) were to implement modifications on Units 3 and 4 to remove the initiation of a medium runback within the TCS due to the opening of the low-pressure heater bypass valves (CV-3/4-2011). At the time of the inspection, this modification was not complete; however, a temporary modification was completed on Units 3 and 4 which disabled the logic inputs within the TCS that initiated a medium runback due to the opening of CV-3/4-2011.
- To address the root cause identified in RCE 2365970, the licensee completed a corrective action that involved having the Reactivity Senior Reactor Operator (SRO) and Reactor Operator (RO) complete a remedial plan to close gaps in proficiency (Work Habits, Knowledge, and Skills) related to Procedure Use & Adherence, Reactor Startup, and low power operations. The effectiveness review for this CAPR requires the Reactivity SRO and RO pass an exam on reactor physics and low power operations and successfully complete an evaluated reactor startup in the simulator.
- For RCE 2366158, the licensee's CAPR was to revise procedures 3/4-GOP-301, "Hot Standby to Power Operation," to include a requirement to verify the status of the SGFP recirculation valve controllers prior to entering Mode 1.
- The licensee's CAPR recurrence for RCE 2385529 was to revise procedure 0-PME-049.01 to require cleaning and lubrication of cell switch contacts.

##### (2) Planned

- For RCE 2365716, the licensee's corrective actions to prevent recurrence were to implement modifications on Units 3 and 4 to remove the initiation of a medium runback within the TCS due to the opening of the low-pressure heater bypass valves (CV-3/4-2011). At the time of the inspection, this modification was not complete; however, the licensee planned to make the temporary modification discussed above into the permanent modification. The licensee stated that if the temporary modification became permanent, there would be no additional physical modifications to plant equipment, only administratively carrying out plant

procedures and updating applicable documents and drawings. At the time of the inspection, this was scheduled to be completed for Units 3 and 4 prior to the end of the 2021 fall refueling outage.

b. Other Corrective Actions

(1) Completed

- For RCE 2365716, other corrective actions included:
  - A modification to update the Unit 4 TCS megawatt controller settings for the low-pressure turbine upgrades.
  - Reviews of digital modifications associated with the extended power uprate (EPU) to identify unanalyzed functions or failure modes that could challenge system or plant functionality.
  - A review of the runback analysis to determine if inputs were still valid or if they required updating.
  - A review of the tuning parameters of the main feedwater regulating valves for consistency with as-left post-EPU values and evaluate for improved valve performance.
  
- For RCE 2365970, other corrective actions included:
  - A revision to procedure 3/4-GOP-301, "Hot Standby to Power Operations," to ensure better monitoring and control of critical parameters during reactor startup and reinforce the overlap of the nuclear instruments.
  - Established an operations recovery plan that focused on management observations, establishment of shift mentors, oversight behavior expectations, and assessment of licensed operator proficiency.
  
- For RCE 2366158, other corrective actions included:
  - A revision of applicable operations training lesson plans and conducting training on the logic and function of the DCS D4/5 Secondary Trouble screen.
  - A revision to procedures 3/4-ARP-097.CR.D, "Annunciator Response Procedure," to add an operator action for annunciator D4/5 to ensure DCS controllers for drain valves and SGFP and condensate pumps recirculation valves are not in an abnormal alignment.
  - A revision to procedure 0-OSP-200.5, "Miscellaneous Tests, Checks and Operating Evolutions," to include a requirement that the status of all DCS secondary controllers has been verified if annunciator D4/5 is locked in.
  
- For RCE 2385529, other corrective actions included:
  - The Unit 3 B-train reactor trip breaker and cubicle cell switches were replaced.
  - The Unit 3 A-train reactor trip and bypass breaker, and the B-train bypass breaker cubicles and cell switches were inspected, cleaned, and tested for proper operation.
  - A modification to detect for a standing trip signal from cell switch contacts prior to surveillance testing restoration was installed on Unit 3 A-train and B-train reactor trip and bypass breakers.
  - Preventive maintenance activities were initiated to require reactor trip and bypass breaker cubicle cell switch replacements at no more than 5 and 10

refueling cycles respectively.

(2) Planned

- For RCE 2365716, additional planned corrective actions included:
  - A modification to update the unit 3 TCS megawatt controller settings for the low-pressure turbine upgrades.
  
- For RCE 2366158, additional planned corrective actions included:
  - A modification to the DCS logic to lock in annunciator D4/5 whenever a DCS related controller is in manual.
  - A modification to the inputs into the DCS D4/5 Secondary Trouble screen to include the SGFP recirculation controllers, master controller, and condensate pump recirculation controller in manual.
  
- For RCE 2365716, additional planned corrective actions included:
  - Replacement of the cell switches for the remaining reactor trip and trip bypass breaker cubicles during upcoming refueling outages PT3-32 (Unit 3) and PT4-33 (Unit 4).
  - Implementation of a modification to detect for a standing trip signal from cell switch contacts prior to surveillance testing restoration was installed on Unit 4 A-train and B-train reactor trip and bypass breakers is scheduled to be installed during the PT4-33 refueling outage.

NRC Assessment: The inspectors concluded the dates for implementation and completion of the planned root and contributing cause corrective actions were reasonable, effective, and prioritized with consideration for risk significance and regulatory compliance. The inspectors also concluded the licensee established reasonable measures of success to evaluate the effectiveness of the corrective actions. When complete, the NRC plans to inspect and assess the planned corrective action to prevent recurrence identified in Section 3a(2). The inspectors had the following observations:

- For RCE 2366158, the root cause was identified that operators demonstrated knowledge gaps in monitoring plant conditions and failed to recognize the collective status of the feedwater regulating valves, recirculation valves, and SGFP performance. Procedure PI-AA-100-1005, "Root Cause Analysis," states, in part that, CAPRs are actions to eliminate to the root cause. The inspectors observed that the CAPR (Revise 3/4-GOP-301, "Hot Standby to Power Operation," to include a requirement to verify the status of the SGFP recirculation valve controllers prior to entering Mode 1) did not present a direct line to the wording associated with the root cause. The procedure revision did not eliminate operator knowledge gaps in monitoring plant conditions. When the CAPR was considered and evaluated with the additional corrective actions, including corrective actions from the contributing causes, the inspectors determined that the actions were reasonable to address the root cause.

4. Old Design Issue Evaluation.

The inspectors did not evaluate the finding and associated violation for treatment as an Old Design Issue as it did not satisfy the criteria specified in IMC 0305 Section 11.05.

5. Conclusion.

The inspectors concluded the corrective actions to preclude repetition of the root and

contributing causes of the performance issue were effective and adequately prioritized considering safety significance and regulatory compliance. In addition, the inspectors determined evaluations were documented at a sufficient level of detail, included relevant operating experience, and identified the root causes, contributing causes, extent of conditions, and extent of causes of the performance issue. Based on the results of the inspections, the inspectors concluded the objectives of the IP were met.

## **EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On August 19, 2021, the inspectors presented the 95001 supplemental inspection results to Mr. Michael Pearce, Site Vice President, and other members of the licensee staff.

**DOCUMENTS REVIEWED**

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
95001	Corrective Action Documents	2263299, 2365714, 2365716, 2365717, 2365970, 2366002, 2366093, 2366158, 2367875, 2368134, 2369336, 2372780, 2379864, 2379865, 2379866, 2379867, 2379868, 2379869, 2385529, 2385531, 2385558, 2385559, 2385565, 2385688, 2401545, 2401548, 2401550		
	Drawings	5613-M-3074	Feedwater System, Sheet 1	Rev. 37
		5613-M-3074	Feedwater System, Sheet 2	Rev. 44
		5613-M-3074	Feedwater System, Sheet 3	Rev. 37
		TMD 295196	Feedwater & Condensate L.P. Feedwater Heater Bypass Solenoid Valve	Rev. 0



Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		TMD 295206	TCS Turbine Runbacks	Rev. 0
	Engineering Changes	285668, 295954, 296084, 296152		
	Miscellaneous		Operations Training Lesson Plan PTN 6902122, Condensate and Feedwater System, CH7	
			Operations Training Lesson Plan PTN 6902407, 3/4-GOP-301 Hot Standby to Power Operations	Rev. 1
			Interim Effectiveness Review for CR 02365716	06/04/2021
			Interim Effectiveness Review for CR 02366158-13	12/04/2020
		LTR-AMER-MKG-20-1656	Westinghouse Revised Offer for Control System Transient Response Analyses for Turkey Point Units 3 and 4NEXT-21-62, Control System Transient Response Analysis: Transmittal of LTR-SCS-21-32 r0, "Steam Generator Level Margin to Trip Assessment for Turkey Point Units 3 and 4"	05/12/2021
		LTR-AMER-MKG-21-814	Westinghouse Time & Material Offer for Control System Consulting Turkey Point Units 3 and 4	06/23/2021
		PMC-21-009496	Replace Reactor Trip Breakers and Reactor Trip Bypass Breakers Switchgear Cubicle Cell Switches	
		PMRQ 00046480-07	Rx Trip Breaker and Bypass Breaker Cell Switches Replace	
	Procedures	0-OSP-200.5	Miscellaneous Tests, Checks and Operating Evolutions	Rev. 53
		0-PME-028.01	Control Rod Drive Motor Generator (CRDM MG) DB-50 Breaker Maintenance Inspections, Test and Adjustments	Rev. 4
		0-PME-049.01	Reactor Trip and Trip Bypass Breaker Inspection and Maintenance	Rev. 11
		3-ARP-097.CR.D	Annunciator Response Procedure	Rev. 24
		3-GOP-301	Hot Standby to Power Operation	Rev. 61 and 62
		3-SMI-049.02B	Train B RPS Logic Test Above P-8	Rev. 3
		4-ARP-097.CR.D	Annunciator Response Procedure	Rev. 23
		EN-AA-204-1107	Processing Vendor Documents	Rev. 6
		ODI-CO-026	Major Evolution Pre-Briefs	12/11/2020
		OP-AA-100-1000	Conduct of Operations	Rev. 34
		PI-AA-100-1005	Root Cause Analysis	Rev. 24

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		PI-AA-100-1006	Common Cause Evaluation	Rev. 16
		PI-AA-100-1007	Issue Investigation	Rev. 26
		PI-AA-104-1000	Condition Reporting	Rev. 29
		TR-AA-201-1000	Conduct of Training	Rev. 11
	Work Orders	40467135 73		
		40737429 07		
		40738036 01		
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