

Turkey Point 4

4Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2012

Identified By: NRC

Item Type: FIN Finding

Failure to verify 1B feedwater heater drain valve closed

A self-revealing finding was identified when the licensee failed to follow procedure 0-ADM-222, Drain and Vent Rig Controls, while installing a temporary drain hose on Turkey Point Unit 4 in-service equipment. Operations and maintenance workers failed to verify a drain line flow path was isolated on the 1B feed water heater prior to removing a pipe valve cap that resulted in an unexpected lowering of condenser vacuum. Operators took action to close the open drain line isolation valve and terminate the plant transient. The licensee captured this condition in their corrective action program as AR 1819010.

The licensee's failure to verify the closed position of 1B feed water heater drain valve 4-30-128, as required by procedure 0-ADM-222, prior to removing the pipe cap was a performance deficiency. The inspectors determined the performance deficiency was more than minor using IMC 0612, Appendix B, Issue Screening, because the performance deficiency was associated with the configuration control attribute of the initiating events cornerstone, and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. Specifically, the failure to verify the position of 4-30-128 resulted in lowering condenser vacuum that could have led to a reactor trip and the unavailability of the main condenser. The inspectors evaluated the finding using the significance determination process for findings at power of IMC 0609, Appendix A, Exhibit 1, Transient Initiators. The inspectors determined the finding was of very low safety significance (Green) because the finding did not result in a reactor trip and a loss of mitigation equipment relied upon to transition the plant to a stable shutdown condition. The finding was associated with a cross-cutting aspect in the work practices component of the human performance area because the licensee did not define and effectively communicate expectations, or follow the procedural requirement to physically verify valve position during the drain hose installation work [H.4(b)]. (Section 1R11.2)

Inspection Report# : [2012005](#) (*pdf*)

Mitigating Systems

Significance: G Aug 02, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Translate Design Basis Requirements into Plant Procedures and Calculations for CCW Heat Balance Equation

An NRC identified non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified for the licensee's failure to translate the worse case total post accident ICW flow rate for CCW heat exchangers, as documented in calculation PTN-4FSM-04-003 Revision 2, into surveillance, 3/4-OSP-030.4, CCW Heat Exchanger (HX) Performance Test. In addition, the licensee failed to incorporate seasonal salinity variances into calculation PTN-BFJM-96-004, "HX3 and HX4 Computer Code Verification." The effects of these two discrepancies was a reduction in maximum allowed canal temperature margin by approximately 1.5% or 1.5 degrees Fahrenheit. The licensee entered this issue into their corrective action program (CAP) as Condition Report (CR) 1789995. The failure to maintain the CCW heat balance calculation to ensure the plant could meet their design basis to perform heat

removal for normal cool down of the facility, and to mitigate the effects of accident conditions within acceptable limits is a performance deficiency. The inspectors determined that the performance deficiency was more than minor because the calculation errors impacted the Mitigating Systems cornerstone objective to ensure the capability of the CCW system to respond to initiating events to prevent undesirable consequences and affected the cornerstone attribute of Design Control. The inspectors determined that this finding did not have a cross-cutting aspect, because the finding was determined not to be indicative of current licensee performance.

Inspection Report# : [2012011](#) (*pdf*)

Significance: **G** Aug 02, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Corrective Actions Following Identification of a Non-conservative Technical Specification

An NRC identified non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified when the licensee's failure to take timely corrective action to address a nonconforming condition of Technical Specification (TS) 3/4.5.2 S R4.5.2a. The non-conservative TS was identified and placed in the corrective action program in 2006 as CR 2006-22868. TS 3.5.2 SR 4.5.2a was determined to be non-conservative and the corrective action to submit a TS amendment to address the non-conservative TS was not implemented. The licensee is scheduled to submit the license amendment in the fourth quarter of 2012, as referenced in AR 1790829. The inspectors determined that the licensee's failure to timely correct a condition adverse to quality associated with the non-conservative TS was a performance deficiency. The performance deficiency was more than minor because if left uncorrected the failure to implement timely corrective actions has the potential to lead to a more significant safety event in that the unit could be placed in an unanalyzed condition for up to 24 hours. The inspectors determined that the finding was of very low safety significance because there has been no loss of safety system function. The inspectors determined that this finding directly involved the crosscutting area of Problem Identification and Resolution, component of the CAP and an aspect in taking appropriate corrective actions to address safety issues in a timely manner, commensurate with their safety significance and complexity. [P.1(d)]

Inspection Report# : [2012011](#) (*pdf*)

Significance: **G** Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Emergency lighting to auxiliary feedwater area disabled

The inspectors identified a non-cited violation of the Units 3 and 4 operating licenses condition 3.D, Fire Protection, when the licensee failed to provide emergency lighting in the common auxiliary feedwater (AFW) cage and other areas. The electrical panel that supported normal lighting in the area was taken out of service for maintenance thus placing the emergency lights on battery power until the batteries depleted and the areas became dark, impacting the ability of operators to complete manual actions in the area, if needed. The licensee documented the issue in the corrective action program (CAP) as AR 1738082.

The inspectors determined that the failure to provide emergency lighting in areas requiring local manual actions to safely mitigate certain fire events, and the associated access/egress routes, was a performance deficiency. The issue was more than minor because the objective of the Mitigating System Cornerstone to ensure the availability of fire protection equipment was affected when emergency lighting was not provided. The inspectors assessed the finding using NRC Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," and assigned a low degradation rating because of the reasonable likelihood that plant operators would obtain alternate lighting and complete the prescribed manual actions. The finding screened as having very low safety significance. The cross cutting aspect of Work Control – Planning, (H.3(a)), was assigned because the licensee did not use risk insights, did not assess environmental conditions (lighting) that may have impacted human performance, and did not plan for contingencies nor compensatory actions when the normal lighting was removed from service leading to loss of emergency lighting.

Inspection Report# : [2012002](#) (*pdf*)

Significance: G Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Control power cables repeatedly submerged in ground water, contrary to design

A self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” was identified when FPL did not maintain safety-related power cables in the environment for which they were designed and tested. Specifically, 125 volt DC control power cables feeding various safety related components and cables supporting other risk significant equipment had been repeatedly submerged in ground water for extended periods of time and this submergence had the potential to affect the ability of the cables to perform safety related functions. The issue was entered into the licensee’s CAP as AR 1717619. Although predominantly Unit 3 cables were submerged, because equipment is shared, both units were affected.

Allowing water accumulation in the manhole(s) after disabling of the sump pump without compensatory measures to keep the safety related and risk significant cables dry, resulted in subjecting the cables to an environment for which they were not designed, and was a performance deficiency. The finding was more than minor because it challenged the reliability of systems that respond to initiating events to prevent undesirable consequences, which is an attribute of the Mitigating Systems cornerstone. The inspectors evaluated the finding in accordance with IMC 0609.04, Phase 1, “Initial Screening and Characterization of Findings.” The finding was of very low safety significance because it did not represent an actual loss of safety function or contribute to external event core damage sequences. The finding had a cross-cutting aspect in Problem Identification and Resolution, Corrective Action Program, (P.1(c)), because FPL did not thoroughly evaluate submerged cables such that the resolutions addressed causes and extent of conditions, including evaluating for operability.

Inspection Report# : [2012002](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

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