

## Turkey Point 4 4Q/2016 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:** G Dec 31, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

#### **Unrecognized Inoperable Reactor Protection System Instrument Channel**

Green: A self-revealing NCV of Technical Specification (TS) Limiting Condition for Operation (LCO) 3.3.1 was identified for the licensee's failure to input the correct Eagle 21 resistance temperature detector (RTD) coefficients into the Eagle 21 reactor protection system (RPS) which resulted in channels being inoperable for longer than their allowed outage times. Immediate corrective actions to restore compliance included inputting the correct RTD coefficients into the Eagle 21 RPS. Planned corrective actions to prevent recurrence included revising engineering procedures to include validation that the RTD coefficients were derived via the correct methodology. This issue was entered into the licensee's corrective action program as action request (AR) 02129632.

The licensee's failure to input the correct RTD coefficients into the Eagle 21 RPS was a performance deficiency. The performance deficiency was more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage) because the specified safety function of each functional unit was not met. The inspectors evaluated the significance of this finding and determined the finding was of very low safety significance (Green) because the finding did not affect the function of other redundant or diverse methods of reactor shutdown. The NRC assigned a cross cutting aspect associated with the Resources element of the Human Performance area because the licensee failed to ensure that procedures related to RTD replacement contained adequate information for verifying and inputting correct RTD coefficients [H.1].

Inspection Report# : [2016004](#) (*pdf*)

**Significance:** G Sep 28, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

#### **Failure to provide adequate flood protection for the 4A RHR train**

Green: The NRC inspectors identified a non-cited violation (NCV) of Technical Specification (TS) 6.8.1, for the licensee's failure to implement required housekeeping controls in the 4A residual heat removal (RHR) pump room to ensure flood protection devices would not be damaged or otherwise clogged. Specifically, the licensee's failure to adequately implement station housekeeping procedure MA-AA-100-1008 to ensure flood protection devices in the 4A RHR pump room were not challenged was a performance deficiency. Immediate corrective actions included removing the debris, entering this issue into the corrective action program (CAP), and initiating a past-operability review.

The inspectors determined the performance deficiency to be more than minor because it was associated with the

protection against external factors attribute of the mitigating systems cornerstone and there was reasonable doubt of operability which if left uncorrected could have adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using Manual Chapter 0609, Appendix A, “The Significance Determination Process for Findings-At-Power,” the inspectors screened the finding as Green because it did not involve the total loss of any safety function. The inspectors assigned a cross cutting aspect in the area of human performance associated with the work management element because the organization failed to adequately implement a process to control work activities in a high-risk flood area, and did not adequately identify and manage risk associated with the flood-sensitive area [H.5]  
Inspection Report# : [2016003](#) (*pdf*)

**Significance:**  Sep 13, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Provide Adequate Guidance to Prevent LCSWGR Heat-up**

Green: The NRC identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures and Drawings,” for the licensee’s failure to provide adequate procedural guidance to ensure that the temperature in the Load Center Switchgear Room (LCSWGR) remains below the design temperature of 104 °F. The licensee entered the issue into the corrective action program and updated the procedure to include a specific guidance to the operator during a loss of air conditioning.

This performance deficiency was determined to be more than minor because it was associated with the Procedure Quality 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, failure to provide adequate procedural guidance to prevent operators from opening the east door (el. 18’) in the 3A Switchgear Room (SWGR) when the Emergency Diesel Generator (EDG) 3A is operating (i.e., under Loss of Offsite Power conditions) would cause temperatures to rise above the room design temperature of 104 °F. The team determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design of a mitigating structure, system, or component (SSC), and the SSC maintained its operability or functionality. This finding was not assigned a cross-cutting aspect because the issue did not reflect present licensee performance.

Inspection Report# : [2016007](#) (*pdf*)

**Significance:**  Sep 13, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Correct Reactor Coolant Loop Check Valve 312-A’s Failure to Fully Seat**

Green: The NRC identified a non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Actions,” for the licensee’s failure to correct an identified condition adverse to quality involving a failure of charging system check valve 3-312A to fully seat due to internal component wear. The licensee entered the issue into the corrective action program and took corrective actions to replace the valve’s internal components.

This performance deficiency was determined to be more than minor because it was associated with the Equipment 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 failure to take appropriate corrective actions to address internal component degradation of check valve 3-312A adversely impacts the capability of charging system to isolate and provide back leakage protection to the Chemical Volume and Control System (CVCS) from the Reactor Coolant System (RCS). The team determined the finding to be of very low safety significance (Green) because the valve’s safety related function of opening to provide a boration flowpath to the RCS was maintained. This finding was not assigned a cross-cutting aspect because the issue did not reflect present licensee performance.

Inspection Report# : [2016007](#) (*pdf*)

**Significance:**  Jun 29, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Correct Conditions Adverse to Quality Associated with the Eagle 21 System**

Green. NRC reactor inspectors identified Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for a failure to correct a condition adverse to quality. The licensee identified that the ability to test the Eagle 21 was degraded but failed to take adequate corrective actions to correct the condition. The licensee entered the issue into their corrective action program as action request ARs 2023314 and 02145155.

The performance deficiency was determined to be more than minor because it was associated with the Equipment 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, not using COLR specified time-constants SR tests to demonstrate operability of the Eagle 21 system adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of the OP?T and OT?T reactor trip algorithms. The finding was determined to be of very low safety significance (Green) because of the defense in depth of the reactor protection system to cause a trip via alternate and diverse means. The inspectors determined the finding was indicative of present licensee performance and was associated with the cross-cutting aspect of human performance, in the area conservative bias, because individuals failed to evaluate a proposed action to determine if it was safe in order to proceed, rather than unsafe in order to stop (H14).

Inspection Report# : [2016002](#) (*pdf*)

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## Barrier Integrity

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## Emergency Preparedness

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## Occupational Radiation Safety

**Significance:**  Jun 29, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Post a High Radiation Area**

Green. A self-revealing, Green, NCV of TS 6.12.1, was identified by health physicist inspectors for the failure to post a high radiation area (HRA). Specifically, on April 6, 2016, the licensee failed to post the area by the exterior wall of the U4 spent fuel pool (SFP) on the Auxiliary Building roof as a HRA.

This finding was determined to be greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of Human Performance and adversely affected the cornerstone objective ensuring adequate protection of worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Specifically, failure to post and control HRAs can allow workers to enter HRAs without knowledge of the radiological conditions in the area and receive unintended occupational exposure. The finding was evaluated using the Occupational Radiation Safety Significance Determination Process. The finding was

not related to the As Low As Reasonably Achievable (ALARA) planning, did not involve an overexposure or substantial potential for overexposure, and the ability to assess dose was not compromised. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding involved the cross-cutting aspect of Human Performance, Work Management (H.7) because the organization failed to implement its process for planning and controlling access to HRAs on the Auxiliary Building roof when fuel bundle movement were still ongoing. The violation was entered into the licensee's corrective action program (CAP) as action request (AR) no. 02123851.

Inspection Report# : [2016002](#) (*pdf*)

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## Public Radiation Safety

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### 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.

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### Miscellaneous

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