

Vogtle 2

4Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to properly implement a maintenance procedure caused a Reactor Trip

A self-revealing non-cited violation (NCV) of Technical Specifications (TS) 5.4.1.a, Procedures, was identified for the licensee's failure to properly implement procedure 24750-2, "Steam Generator Level (Narrow Range) Protection Channel II 2L-519 Channel Operational Test and Channel Calibration." During testing of Unit 2 loop 1 steam generator (S/G) narrow range channel 2L-519 the channel was not removed from scan resulting in a reactor trip. The licensee's immediate corrective actions were to remove the technicians performing the calibration from maintenance duties for formal remediation. The licensee documented this condition in CR 10230073.

The performance deficiency (PD) was more than minor because it adversely effected the Initiating Events cornerstone objective in that the failure to properly remove channel 2L-519 from scan resulted in a reactor trip. The finding was determined to be Green because the PD did not result in a loss of mitigation equipment used to transition the reactor to a stable shutdown condition. The finding was assigned a cross cutting aspect of Avoid Complacency because maintenance technicians failed to implement appropriate error reduction tools to verify that the correct channel was removed from scan for testing. (H.12)

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

Mitigating Systems

Significance: G Nov 04, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Verify Capability of EDGs Under Maximum Frequency and Voltage

The NRC identified a Green non-cited violation of Title 10 Code of Federal Regulations Part 50, Appendix B, Criterion III, "Design Control," for failure to correctly translate the appropriate permissible limits for frequency and voltage from technical specifications into the emergency diesel generators design loading calculations as required by the licensing and design bases. The violation and related issues were entered into the licensee's corrective action program as condition reports 10288732 and 10293810. The licensee was evaluating corrective actions, which included determining acceptable loads at the more limiting power demands and developing procedural guidance.

The performance deficiency was determined to be more than minor because it was associated with the Design Control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of the emergency diesel generators to respond to initiating events to prevent undesirable consequences. Specifically, failing to evaluate the impact from the frequency and voltage limits allowed by technical specification could result in overloading the diesel generator if operators manually loaded additional plant

protection systems during an event. The team determined the finding was of very low safety significance (Green) because it was a design deficiency that did not result in a loss of emergency diesel generators operability. The team did not assign a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

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

Significance:  Nov 04, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure To Ensure Adequate Unit 1 Emergency Diesel Generator Surveillance Acceptance Criteria

The NRC identified a Green non-cited violation of Title 10 Code of Federal Regulations Part 50, Appendix B, Criterion V, “Instructions, Procedures and Drawings,” for the licensee’s failure to have adequate instructions and acceptance criteria to confirm the emergency diesel generators capability to reject the largest single load without exceeding predetermined frequency and voltage while maintaining a specified margin to the overspeed trip. The violation

was entered into the licensee’s corrective action program as condition report 10294395. An immediate determination of operability was performed and concluded that the Emergency Diesel Generators were operable but degraded nonconforming. The licensee was evaluating corrective actions, which may include a final determination of the most severe single largest load and re-performing the surveillance tests.

The 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 to respond to initiating events to prevent undesirable consequences. Specifically, without adequate acceptance criteria in surveillance procedure SR 3.8.1.8, the procedure could not ensure availability, reliability, and capability of the EDG under the most severe power demand characteristics for electric power used by components. The team determined the finding to be of very low safety significance (Green) because the finding was not a design deficiency, did not represent a loss of system and/or function, and did not represent the loss of any trains of technical specification or non-technical specification equipment. The team did not assign a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

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

Significance:  Nov 04, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Meet Isolation Requirements When Incorporating Non-Class 1E Components into Class 1E electrical Circuits

The NRC identified a Green non-cited violation of Title 10 Code of Federal Regulations Part 50, Appendix B, Criterion III “Design Control,” for installing non-safety related Individual Cell Equalizer devices into the Class 1E battery charging circuits without isolation as specified by Institute of Electrical and Electronics Engineers standard 384 as amended by RG 1.75. The violation was entered into the licensee’s corrective action program as condition report

10294321. The licensee was evaluating corrective actions, which included the removal of the non-Class 1E components.

The performance deficiency was determined to be more than minor because it affected the Design Control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems to respond to initiating events to prevent undesirable consequences. Specifically, the failure to conform to Class 1E design requirements for independence affected the reliability of the Class 1E battery

systems. The team determined the finding to be of very low safety significance (Green), because it was a deficiency affecting the design or qualification of a SSC, and the SSC maintained its operability or functionality. The team did not assign a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

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

Significance:  Nov 04, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Perform Required In-Service Testing of Unit 2 CST Swap over Valves

The NRC identified a Green non-cited violation of Technical Specification 5.5.8, “Inservice Testing Program,” for Vogtle Unit 2 failure to perform the required testing in accordance with the American Society of Mechanical Engineers Operation and Maintenance Code for nine valves that had active safety functions. Specifically, these valves were required to operate when aligning the AFW pumps from Condensate Storage Tank (CST) 1 to CST 2.

The violation was entered into the licensee’s corrective action program as condition report 10293900. The licensee performed an immediate determination of operability and determined that the CST valves were operable but degraded nonconforming. The licensee planned to register the CST valves into the IST program and exercise those valves that that have never been exercised at the first available opportunity.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Equipment Performance, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, degraded valve performance could go undetected without periodic testing and trending. The team determined the finding to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system and/or function, and did not represent the loss of any trains of TS or Non-TS equipment. The team did not assign a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

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

Significance:  Nov 04, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Perform Periodic Testing Of Safety-Related Valve Interlocks

The NRC identified a Green, non-cited violation of Title 10 Code of Federal Regulations Part 50.55a(h)(2) “Protection Systems,” because the licensee failed to perform periodic testing of safety-related valve interlocks to ensure an adequate single failure analysis by identifying detectable failures in accordance with Institute of Electrical and Electronics Engineers standard (IEEE) 379-1972, “IEEE Trial-Use Guide for the Application of the Single-Failure Criterion to Nuclear Power Generating Station Protection Systems.” The violation was entered into the licensee’s corrective action program as condition report 10293749. The licensee performed an immediate determination of operability and determined that the affected systems were operable but degraded nonconforming. The licensee was in the process of determining and developing adequate corrective actions to conform with Institute of IEEE Standard 379-1972.

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, the failure to periodically test safety-related valve interlocks affected the adequacy of the licensee’s single failure analysis. The team determined the finding to be of very low safety significance (Green) because the finding was not a design deficiency, did not represent a loss of system and/or function, and did not

represent the loss of any trains of technical specification or nontechnical specification equipment. The team did not assign a crosscutting aspect because the most significant contributor did not reflect current licensee performance.

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

Significance:  Nov 04, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Assure Auxiliary Feedwater Design Basis Capability

The NRC identified a Green non-cited violation of Title 10 Code of Federal Regulations Part 50, Appendix B, Criterion III, "Design Control" for the licensee's failure to translate the Auxiliary Feedwater (AFW) pumps design bases into adequate acceptance criteria for technical specifications SR 3.5.7.2 and for the failure to verify the adequacy of the design of the same AFW pumps. The licensee entered the violation into the corrective action program as condition

reports 10293456 and 10294168. As an immediate corrective action, the licensee evaluated the operability of the Unit 1 and 2 AFW pumps, modify the allowed diesel frequency acceptance criteria, and initiated corrective action to develop new acceptance criteria and monitor pump performance for degradation.

The performance deficiencies were more-than-minor because they were associated with the Design Control 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). Specifically, when the quality of the established surveillance criteria was considered, there was a reasonable doubt on the operability of the Unit 1 and 2 turbine driven AFW and 2A and 1B motor driven AFW pumps. The team determined the finding to be of very low safety significance (Green) because it did not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time. The team determined that the finding had a crosscutting aspect in the Human Performance area of Design Margins [H.6], because engineers did not demonstrate the characteristic of ensuring that design margins were guarded and changed only through a systematic and rigorous process.

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

Significance:  Sep 30, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Properly Implement Fire Door Inspections

An NRC-identified Green non-cited violation (NCV) of Technical Specifications (TS) 5.4.1.d, "Procedures," was identified for the licensee's failure to correctly verify fire door gaps at the strike plate area and between meeting edges of double swinging metal doors were within acceptable limits. The licensee initiated hourly roving fire watches for these fire doors and took corrective maintenance action to restore affected fire doors within limits. The licensee documented this condition in condition reports 10254221 and 10252774.

The performance deficiency was more than minor because it was associated with the Mitigating Systems cornerstone attribute of Protection Against External Hazards (i.e. fire) and adversely affected the cornerstone objective in that door gaps outside the required limits compromised the door's fire rating qualification. The finding was determined to be of very low safety significance (i.e. Green) because either the combustible loading on both sides of each door was representative of a fire duration of less than 1.5 hours or each door maintained at least a 1-hour fire endurance rating. The finding had a cross-cutting aspect of "Training" in the Human Performance area because the licensee did not ensure there was adequate training to properly inspect station fire doors (H.9).

Inspection Report# : [2016003](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Significance:  May 13, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Adequately Maintain Emergency Response Facilities

The inspectors identified a non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (CFR), Part 50.54(q)(2), for the licensee's failure to maintain the effectiveness of its emergency plan by ensuring that adequate emergency facilities and equipment to support emergency response are provided and maintained as required by 10 CFR 50.47(b)(8). Specifically, the effectiveness of the emergency plan was reduced by a change to the Technical Support Center (TSC) functionality requirements in Technical Requirements Manual (TRM) TR 13.13.1, Emergency Response Facilities, Revision 1. The requirement to maintain climate control was removed without an adequate basis to support removal. The procedure change had been in place since September 2013, and until a corrected revision is issued, a Standing Order has been put in place. The licensee entered this finding into the corrective action program (CAP) as condition report (CR) 10221041.

The inspectors determined that the performance deficiency was more than minor because it was associated with the procedure quality attribute of the Emergency Preparedness (EP) cornerstone, adversely affected the associated cornerstone objective, and would have affected the emergency response organization's ability to effectively perform their duties had an emergency been declared and TSC climate control non-functional. The finding was evaluated using the EP significance determination process and was identified as having very low safety significance (Green) because it was a failure to comply with NRC requirements and was not a loss of the planning standard function or the overall function of the TSC. The finding was associated with a cross-cutting aspect in the Change Management component of the Human Performance area because the licensee failed to use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. [H.3]

Inspection Report# : [2016502](#) (*pdf*)

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.

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

Last modified : February 01, 2017