

## Oconee 2

### 3Q/2016 Plant Inspection Findings

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## Initiating Events

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## Mitigating Systems

**Significance:** G Jun 30, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Failure to properly control transient combustible materials in the Oconee Main Control Rooms.**

Green: An NRC-identified Green non-cited violation (NCV) of Oconee Nuclear Station Units 1, 2, and 3 Renewed Facility Operating License Condition 3.D, "Fire Protection," was identified for the licensee's failure to adequately implement the requirements of the transient combustible material program. Specifically, licensee failed to control the storage of transient combustible material in the Oconee main control rooms with the proper evaluation in accordance with procedure AD-EG-ALL-1520, "Transient Combustible Control," Attachment 3, "Allowed Combustible Materials in Level B and Level C Areas." The licensee removed the stored items from each of the main control rooms and entered this issue into their corrective program as nuclear condition reports (NCRs) 02012091; 02012290; and 02013990.

The licensee's failure to control the storage of transient combustible material in the Oconee main control rooms with the proper evaluation in accordance with procedure AD-EG-ALL-1520 was a performance deficiency. The performance deficiency was more-than-minor because it was associated with the protection against external factors 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, uncontrolled transient combustibles challenge the habitability requirements of the main control room in the event of a fire and the ability of licensed operators to respond to events using the systems designed to prevent undesirable consequences. The finding was screened in accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Initial Characterization of Findings" and IMC 0609 Appendix F, "Fire Protection Significance Determination Process" Task 1.3.1, and determined to be of very low safety significance (Green) because the finding did not prevent the reactor to reach and maintain a safe shutdown condition. The finding was determined to have a cross-cutting aspect of procedure adherence in the human performance cross-cutting area because the licensee failed to implement the requirements of station procedure AD-EG-ALL-1520, "Transient Combustible Control" [H.8]. (Section 4OA2)

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

**Significance:** G Mar 18, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Postulated Fire Affecting High Pressure Injection Pump Did Not Receive a VFDR Evaluation**

Green. The NRC identified a Green NCV of 10 CFR 50.48(c) and National Fire Protection Association Standard (NFPA) 805, Section 2.4.2.4 for the licensee's failure to perform an adequate engineering analysis to determine the

effects of fire on the ability to achieve the nuclear safety performance criteria, and consequently, did not add an associated variation from deterministic requirements (VFDR) into the Fire probabilistic risk assessment (PRA). Specifically, the licensee's Nuclear Safety Capability Assessment (NSCA) failed to identify cables in the turbine building (TB) that could prevent the operation of the High Pressure Injection (HPI) Pumps. This item was entered into the corrective action program (CAP) as action request (AR) 02011673, and the licensee implemented compensatory measures in the form of hourly fire watches.

The performance deficiency (PD) was more than minor because it was associated with the reactor safety Mitigating Systems cornerstone attribute of protection against external factors (i.e. fire), 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's failure to analyze the effects of fire damage on the HPI cables in the TB could result in fire damage adversely affecting the ability to achieve and maintain safe and stable conditions. Using the guidance of IMC 0609, App. F, the finding was screened as Green because the finding did not affect the ability to reach and maintain a stable plant condition within the first 24 hours of a fire event (Task 1.4.5-B). Across cutting aspect in the area of Human Performance, Consistent Process because the licensee did not use a consistent, systematic approach to make decisions, and did not incorporate appropriate risk insights (H.13). (Section 1R05.06) Inspection Report# : [2016007](#) (pdf)

**Significance:**  Dec 31, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

**Failure to Accomplish Activities Affecting Quality in Accordance With Station Instructions and Procedures Which Resulted in a Valid AFIS Actuation**

- Green. A Green self-revealing non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the failure to accomplish activities affecting quality in accordance with instructions and procedures established by the licensee. Specifically, the failure of station personnel to correctly close the Weidmueller links on the feedwater control valves, in accordance with procedure PT/2/A/0152/020, "AFIS Circuitry Test," Enclosure 13.2, "AFIS Circuitry Verification and Valves Stroked on Refueling Frequency During FDW System Shutdown," Steps 1.22 and 1.23, caused feedwater flow oscillations. The feedwater flow oscillations resulted in a valid automatic feedwater isolation signal (AFIS) initialization. The licensee entered this issue into their corrective action program (CAP) as nuclear condition report (NCR) 01939072. The licensee verified all AFIS links on all units were closed and modified station procedures to include additional detail on ensuring that the links are fully closed.

The licensee's failure to follow procedure PT/2/A/0152/020, "AFIS Circuitry Test," during the last AFIS circuitry testing on November 17, 2013 was a performance deficiency. The performance deficiency was more than minor because it was associated with the equipment performance and human performance attributes 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 (i.e., core damage). Specifically, the failure of station personnel to correctly close the Weidmueller links on the feedwater control valves caused feedwater flow oscillations resulting in a valid AFIS initialization. Using NRC IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2 "Mitigating System Screening Questions" Part B, dated July 1, 2012, the inspectors determined the finding to be of very low safety significance (Green) since the finding did not result in the loss of equipment specifically designed to mitigate a loss of feedwater flow. Specifically, the AFIS initiation was a valid actuation and as such, there was no loss of safety function. The finding had a cross-cutting aspect of procedure adherence in the area of human performance, because the licensee did not adequately follow processes, procedures, and work instructions (H.8). (Section 4OA3)

Inspection Report# : [2015004](#) (pdf)

## Barrier Integrity

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## Emergency Preparedness

**Significance:**  Dec 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Failure to Adequately Maintain Controlled Procedures in Emergency Response Facilities**

•Green. The inspectors identified a Green NCV of Title 10 of the Code of Federal Regulations (CFR), Part 50.47(b) (16), for the licensee's failure to maintain the effectiveness of its emergency plan by ensuring procedures for use by the emergency response organization are maintained and up-to-date. Specifically, responsibilities for emergency plan implementing procedure distribution were not adequately maintained in multiple emergency response facilities because the procedures were not of the correct revision and may have been used had an emergency been declared. After the NRC inspectors informed the licensee of the discrepancy, the licensee entered the issue into their CAP as action request (AR) 01959550. The licensee's immediate corrective actions were to perform an extent of condition review of all site EP procedures, including the corporate office and the other legacy Duke sites, and replace the procedures with the correct revision.

The licensee's failure to adequately maintain controlled procedures in the emergency response facilities was a performance deficiency. The inspectors determined that the performance deficiency was more than minor because the performance deficiency was associated with the procedure quality attribute of the emergency preparedness (EP) cornerstone and adversely affected the associated cornerstone objective. The finding was evaluated using the EP significance determination process and was identified as having very low safety significance because it was a failure to comply with NRC requirements and was not a loss of the planning standard function. The finding was associated with a cross-cutting aspect in the documentation component of the human performance area because the licensee failed to maintain complete, accurate, and up-to-date documentation (H.7). (Section 1EP5)

Inspection Report# : [2015004](#) (*pdf*)

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## Occupational Radiation Safety

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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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