

# Oconee 1

## 3Q/2014 Plant Inspection Findings

---

### Initiating Events

**Significance:** **W** Jun 27, 2014

Identified By: NRC

Item Type: VIO Violation

#### **Failure to Identify and Correct Weld Cracking in HPI Nozzle**

A White violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified when the licensee failed to identify a crack in a weld located in the Unit 1 High Pressure Injection (HPI) system. In 2004, a procedure was developed for augmented in-service inspection program ultrasonic examinations which effectively removed reasonable assurance that HPI nozzle component cracking would be identified and corrected. NDE-995, "Ultrasonic Examination of Small Diameter Piping Butt Welds and Base Material for Thermal Fatigue Damage," did not contain the necessary steps to achieve acceptable coverage for UT examinations when limitations were encountered.

The inspectors determined that the failure to ensure that station procedure NDE-995 was adequate to identify and correct cracking in weld 1-RC-201-105 was a performance deficiency. The inspectors determined that the performance deficiency was more than minor because it affected the Design Control attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective in that an unidentified crack resulted in reactor coolant system pressure boundary leakage and a forced shutdown of Unit 1. The finding was determined to be White based on a detailed risk analysis. There was no immediate safety concern because the crack was repaired. The inspectors determined this finding has a cross-cutting aspect of H.7 in the Documentation component of the Human Performance area because the licensee did not create and maintain complete, accurate, and up-to-date documentation in procedure NDE-995 to ensure acceptable coverage for UT examinations.

Inspection Report# : [2014011](#) (*pdf*)

Inspection Report# : [2014012](#) (*pdf*)

---

### Mitigating Systems

**Significance:** **G** Mar 21, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Evaluate the Under Voltage Relays at the Worst Case Minimum Drop Out Bus Voltage**

The team identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to ensure that at the worst-case voltage, protective devices and thermal overload relays for safety-related loads would not trip prior to and after the transfer to the emergency power source. This transfer occurs for a sustained degraded voltage below the under voltage relay voltage settings for the duration of the time delay setting or the manual actions credited. The licensee revised their voltage calculations to account for previously unanalyzed loads. The licensee entered this issue into its corrective action program as problem identification program (PIP) O-14-2280.

The team determined that the performance deficiency was more than minor because it was associated with the Design Control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the team identified that the voltages evaluated in the licensee's analysis were nonconservative and could result in lower unanalyzed voltages that could result in connected safety-related loads stalling, becoming damaged, their protective devices tripping, or loads such as battery chargers being below their minimum operating voltages. The team determined that the finding was of very low safety significance (Green) because it was a design deficiency that did not result in a loss of off-site power operability. The team determined that no cross cutting aspect was applicable because this finding was not indicative of current licensee performance.

Inspection Report# : [2014007](#) (*pdf*)

**Significance:** G Mar 21, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Correct Issues with DC System Voltage Calculations and 120Vac Motor Control Center (MCC) Control Circuit Calculations**

The team identified a Green non-cited violation (NCV), with two examples, of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to correct conditions adverse to quality. Specifically, the licensee (1) failed to correct voltage calculations for safety-related 4160 volt circuit breaker 125 volt-direct current control circuits and (2) failed to correct voltage calculations for safety-related 120 volt alternating current motor control center control circuits. The above issues were previously identified as NCV 05000269,270,287/2011010-04 and NCV 05000269,270,287/2011010-03, respectively. The incomplete corrective actions were newly entered in the licensee's corrective action program as problem identification program (PIP) reports O-14-2781 and O-14-2811 to track their completion.

The team determined that the performance deficiency was more than minor because it affected the Equipment Performance attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because the inadequate corrective actions did not result in losses of operability or function for either example. The violation was assigned the cross-cutting aspect of Resolution in the area of Problem Identification and Resolution because the licensee did not take effective corrective actions to address issues in a timely manner. [P3]

Inspection Report# : [2014007](#) (*pdf*)

**Significance:** G Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to properly maintain a fire barrier penetration seal**

An NRC-identified non-cited violation (NCV) of 10 CFR 50.48(c) and National Fire Protection Association Standard 805 (NFPA 805), Section 3.11.4, was identified for the licensee's failure to comply with the fire barrier penetration sealing and inspection requirements of the approved fire protection program (FPP). The annular space between the fire barrier opening and the 2" conduit was not properly sealed. The licensee entered the issue in their CAP as PIP O-13-09104, initiated a work order to repair the seal, and implemented an hourly fire watch as required by Oconee Selected Licensee Commitment (SLC) 16.9.5.

The licensee's failure to comply with the fire barrier penetration sealing and inspection requirements of the approved fire protection program was a performance deficiency. This performance deficiency was determined to be more than

minor because it was associated with the Mitigating Systems cornerstone attribute of protection against external factors (i.e., fire), and adversely affected the cornerstone in that the fire barrier could not be relied upon to fully perform its function. The finding was screened using NRC IMC 0609, Appendix F, “Fire Protection Significance Determination Process,” and determined to be of very low safety significance (Green) because safety significant equipment was located a sufficient distance from the degraded penetration and the reactor’s ability to reach and maintain a safe shutdown condition was not impacted. The cause of this finding was determined to have a cross-cutting aspect of H.2(c) in the Resources component of the Human Performance area because the licensee did not ensure that complete, accurate, and up-to-date design documentation and procedures were available because adequate guidance was not included in the maintenance inspection procedures to allow personnel to identify a degraded condition.

Inspection Report# : [2013005](#) (*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**

Last modified : November 26, 2014