

# Oconee 1

## 3Q/2011 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:**  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to correctly process a UFSAR change**

An NRC-identified non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures and Drawings, was identified when the licensee failed to follow NSD 220, Updated Final Safety Analysis Report (UFSAR) Revision Process, and processed a technical change to the UFSAR as a non-technical change. The licensee retracted the UFSAR change and intends to submit a License Amendment Request to correct the discrepancy between the facility and the UFSAR.

The failure to follow NSD 220 was a performance deficiency (PD). This PD was more than minor because it was associated with the Mitigating Systems cornerstone attribute of Design Control and adversely affected the cornerstone objective in that the licensee used the non-technical editorial change process to modify the qualification of equipment relied upon to mitigate a seismic-induced turbine building flood when a license amendment was required. The inspectors used IMC 0609, Attachment 4, Phase 1 – Initial Screening and Characterization of Findings, and determined the finding was of very low safety significance (Green) because the finding did not result in loss of operability or functionality. The PD directly involved the cross-cutting aspect of using conservative assumptions in decision making in the Decision-Making component of the Human Performance cross-cutting area in that the licensee relied on insufficient information to process a UFSAR change as a non-technical change. [H.1(b)]

Inspection Report# : [2011004](#) (*pdf*)

**Significance:**  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Analyze the Pressurizer Safety valves and PORV and Downstream Piping at the correct Pressure**

Green. The team identified a Green non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control”, for the licensee’s failure to perform a pressurizer safety valve and pressurizer Power Operated Relief Valve (PORV) analysis that included input parameters consistent with current plant design bases. The licensee entered the issue into their corrective action program as PIP O-11-11449 and performed additional analyses and evaluations to assure operability of components.

The licensee’s failure to perform a calculation determining the adequacy of the pressurizer safety valves, PORV, and downstream piping at the design basis accident pressure is a performance deficiency (PD). This PD was more than minor because it affected the Mitigating Systems Cornerstone attribute of equipment performance to ensure the availability, reliability, and capability of safety systems that respond to initiating events to prevent undesirable consequences. In addition the finding is similar to IMC 0612 Appendix E, example 3.j because the issue resulted in a condition where there was a reasonable doubt with respect to operability of safety-related components. Specifically, the pressurizer safety valves, pressurizer PORV and downstream piping operate to mitigate the overpressure transient caused by the design basis rod ejection accident. However, these valves and associated piping were analyzed at a lower pressure than the pressure determined in the (Updated) Final safety Analysis Report (UFSAR) Chapter 15 analysis for that accident creating a reasonable doubt that this equipment would operate properly during that design

basis accident. Failing to analyze this equipment at the proper pressure resulted in a failure to ensure its availability, reliability and capability to respond to initiating events to prevent undesirable consequences. The finding was of very low safety significance because it was a design deficiency confirmed not to result in the loss of operability or functionality. The team determined that no cross cutting aspect was applicable because this finding was not indicative of current licensee performance. (Section 1R21.2.1)

Inspection Report# : [2011010](#) (pdf)

**Significance:**  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate Calculations for Keowee Voltage Relays**

Green. The team identified a Green non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control”, for the licensee’s failure to perform adequate calculations to support the Keowee generator voltage trip setpoints provided in Technical Specification 3.8.1.17. The licensee entered these issues into their corrective action program as PIPs O-11-10907 and O-11-11120, and performed evaluations to provide reasonable assurance that components would have adequate voltage pending formal reanalysis.

The team determined that the failure to perform adequate calculations to support the Keowee generator voltage trip setpoints provided in Technical Specification 3.8.1.17 was a performance deficiency (PD). The PD was more than minor because it affected the Mitigating Systems Cornerstone attribute of Design Control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition the finding is similar to IMC 0612 Appendix E, example 3.j because the issue resulted in a condition where there was a reasonable doubt with respect to operability of safety-related components. Specifically, there was reasonable doubt as to whether the safety related plant Motor Operated Valves (MOVs) and Motor Control Center (MCC) starters would have adequate voltage to perform their safety function following a failure of a Keowee generator voltage regulator. The finding was considered to be of very low safety significance (Green) since this was a design deficiency confirmed not to have resulted in a loss of operability or functionality. The team determined that no cross cutting aspect was applicable because this finding was not indicative of current licensee performance. (Section 1R21.2.3)

Inspection Report# : [2011010](#) (pdf)

**Significance:**  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Perform Adequate Calculations for MCC Control Circuits**

Green. The team identified a Green non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control”, for the licensee’s failure to perform adequate voltage calculations for safety-related Motor Control Center (MCC) 120VAC control circuits. The licensee entered these issues into their corrective action program as PIPs O-11-10907 and O-11-11120, and performed evaluations to provide reasonable assurance that components would have adequate voltage to enable them to perform their intended safety function.

The team determined that the failure to perform adequate design calculations for 120VAC control circuits was a performance deficiency (PD). The PD was more than minor because it affected the Mitigating Systems Cornerstone attribute of Design Control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition the finding is similar to IMC 0612 Appendix E, example 3.j because the issue resulted in a condition where there was a reasonable doubt with respect to operability of safety-related components. Specifically, there was reasonable doubt as to whether the safety MCC starters would have adequate control voltage to perform their safety function during all required conditions. The finding was considered to be of very low safety significance (Green) since this was a design deficiency confirmed not to have resulted in a loss of operability or functionality. The team determined that no cross-cutting aspect was applicable because this finding was not indicative of current licensee performance. (Section 1R21.2.3)

Inspection Report# : [2011010](#) (pdf)

**Significance:** **G** Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Control Circuit Voltage Calculations for 4160V breakers**

Green. The team identified a Green non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control”, for the licensee’s failure to perform adequate voltage calculations for safety-related 4160V circuit breaker 125VDC control circuits. The licensee entered these issues into their corrective action program as PIPs O-11-11438, and performed evaluations to provide reasonable assurance that components would have adequate voltage pending formal re-analysis.

The team determined that the failure to perform adequate design calculations for 125VDC control circuits was a performance deficiency (PD). The PD was more than minor because it affected the Mitigating Systems Cornerstone attribute of Design Control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, the finding is similar to IMC 0612 Appendix E, example 3.j because the issue resulted in a condition where there was a reasonable doubt with respect to operability of safety-related components. Specifically, there was reasonable doubt as to whether the safety related circuit breakers would have adequate control voltage to perform their safety function during all required conditions. The finding was considered to be of very low safety significance since this was a design deficiency confirmed not to have resulted in a loss of operability or functionality. The team determined that no cross cutting aspect was applicable because this finding was not indicative of current licensee performance. (Section 1R21.2.12)

Inspection Report# : [2011010](#) (*pdf*)

**Significance:** **G** Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Procedure for Installation of SSF Submersible Pump**

Green. The team identified a Green non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures and Drawings”, for the licensee’s failure to maintain complete and accurate procedures for installation of the Standby Shutdown Facility (SSF) submersible pump using the alternate means of pump installation. This condition could have prevented installation of that pump in the time frame required if the primary means of pump installation became unavailable. The licensee was not capable of completing the required alternate means of installing the SSF submersible pump as documented in procedure AM/0/1300/059 “Pump-Submersible-Emergency SSF Water Supply-Installation and Removal”, which is required to be completed for sections of “Loss of SSW” and “Standby Shutdown Facility emergency operating procedures”. The licensee implemented compensatory measures to ensure the primary method is always available and entered the issue into their corrective action program as PIP O-11-10962.

The team determined that the failure to maintain complete and accurate abnormal operating procedures for SSF submersible pump installation is a performance deficiency (PD). This PD is more than minor because it affected the Mitigating Systems Cornerstone attribute of design control to ensure the availability, reliability, and capability of safety systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the alternative means for installing the SSF submersible pump, which provides required cooling water to the SSF safety related equipment (SSF Diesel, SSF ASW pump, etc.) during a LOOP as documented in AM/0/1300/059 could not be accomplished. This finding was considered to be of very low safety significance since it was not a design or qualification deficiency, did not result in the loss of any system safety function and was not risk significant due to seismic, flooding or severe weather. The inspectors determined that the finding had a cross cutting aspect of adequate emergency equipment in the resources component of the human performance area. The licensee did not have emergency equipment available as specified in their procedures. [H.2(d)](Section 1R21.2.15)

Inspection Report# : [2011010](#) (*pdf*)

**Significance:** **G** Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Account for the Full Range of Emergency Power AC Frequency When Evaluating the Performance**

## of Safety-Related Components

Green. The team identified a Green non cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, "Design Control", for the licensee's failure to account for the full range of emergency AC power frequencies allowed by the surveillance procedure when evaluating the performance of safety related pumps. The licensee entered the issue into their corrective action program as PIPs O-11-10959, O-11-10954, O-11-10917, and O-11-11015 and performed additional analyses and evaluations to provide reasonable assurance of operability of components.

The team determined that the failure to perform engineering evaluations for the full range of emergency AC power frequencies allowed by the surveillance procedure when evaluating safety related pump performance is a performance deficiency (PD). This PD was more than minor because it affects the Mitigating Systems Cornerstone attribute of design control to ensure the availability, reliability, and capability of safety systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the finding had the potential to lead to a more significant safety concern in that safety- related equipment may not operate properly at all emergency AC power frequencies allowed by the surveillance procedure. This finding is similar to IMC 0612, Appendix E, example 3.j because the issue resulted in a condition where there was a reasonable doubt with respect to operability of safety-related components. Specifically, pumps and fans operating at the high end of the allowable AC frequency will operate at higher speed generating flow rates that exceed the design flow rates. This is nonconservative because a higher flow rate elevates the net positive suction head required for the pumps. It is also non-conservative because air vortices will start forming at higher water levels in tanks and other suction sources. The deficiencies described above resulted in a reasonable doubt that safety-related equipment could perform their functions under the most limiting conditions. The finding was of very low safety significance because it was a design deficiency confirmed not to result in the loss of operability or functionality. The team determined that no cross-cutting aspect was applicable because this finding was not indicative of current licensee performance. (Section 1R21.4).  
Inspection Report# : [2011010](#) (*pdf*)

**Significance:** G Sep 20, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Installation of Non-Qualified SSF Pressurizer Heater Breakers Impacting Operability During Certain SSFCredited Events**

An NRC-identified Green NCV of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified for the licensee's failure to install Standby Shutdown Facility (SSF) pressurizer heater breakers that were qualified for expected environmental conditions inside of containment during design basis events. The licensee installed replacement breakers and the SSF declared operable without testing to support that the replacement breakers would function under elevated containment temperatures.

The failure to maintain design control of the SSF was a performance deficiency (PD). The PD was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Design Control and adversely affected the cornerstone objective in that failure to maintain equipment qualification did not provide reasonable assurance that the SSF Auxiliary Service Water (ASW) subsystem would perform its safety function. The finding was assessed using IMC 0609, Attachment 4, and determined that a Phase III analysis was required because the finding involved the loss or degradation of equipment designed to mitigate external initiating events. The Phase III analysis determined the finding to be of very low safety significance (Green). This finding had a cross-cutting aspect in the area of Human Performance under the Procedural Compliance aspect of the Work Practices component in that the licensee failed to follow the requirements set forth in EDM 601, Engineering Change. [H.4(b)].

Inspection Report# : [2011018](#) (*pdf*)

Inspection Report# : [2011019](#) (*pdf*)

**Significance:** Y Sep 09, 2011

Identified By: NRC

Item Type: VIO Violation

### **Pressurizer Heater Breaker Installation That Would not have Functioned During Certain SSF-Credited Events**

A licensee-identified potentially greater than Green apparent violation (AV) of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified when the licensee failed to maintain design control of the Standby Shutdown Facility

(SSF). Because the safety significance of this finding is potentially greater than Green, it is being treated as an NRC-identified finding.

The failure to maintain design control of the SSF was a performance deficiency (PD). The PD was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Design Control and adversely affected the cornerstone objective in that failure to maintain equipment qualification did not provide reasonable assurance that the SSF Auxiliary Service Water subsystem would perform its safety function. A Phase III analysis was required because the finding involved the loss or degradation of equipment designed to mitigate external initiating events. A cross-cutting aspect was not identified because the finding does not represent current plant performance.

Inspection Report# : [2011017](#) (*pdf*)

Inspection Report# : [2011019](#) (*pdf*)

**Significance:**  Sep 09, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Maintain SSF Pressurizer Heater Breakers as Safety-Related Components**

An NRC-identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified for the licensee's failure to maintain the Standby Shutdown Facility (SSF) pressurizer heater breakers and associated electrical components as safety-related components or seismically-qualified as specified in the SSF licensing basis documents.

The failure to maintain SSF systems, structures, and components (SSCs) as safety-related and seismically-qualified as required by the SSF licensing basis was a performance deficiency (PD). This PD was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Configuration Control and adversely affects the cornerstone objective in that failure to maintain equipment qualification did not provide reasonable assurance that the SSF Auxiliary Service Water subsystem would perform its safety function. The finding was of very low safety significance because the finding involved a design or qualification deficiency confirmed not to result in loss of operability or functionality. The PD directly involved the cross-cutting aspect of thoroughly evaluates problems such that the resolutions address causes and extent of conditions, as necessary including evaluating for operability in the Corrective Action Program component of the Problem Identification and Resolution cross-cutting area for not properly evaluating an immediate determination of operability (IDO). [P.1(c)]

Inspection Report# : [2011017](#) (*pdf*)

**Significance:**  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate post modification testing to ensure SSF DG functionality**

An NRC-identified [Green Non-cited] Violation of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified for the licensee's failure to ensure that a modification installed on the Safe Shutdown Facility (SSF) Diesel Generator (DG) monitoring panel would not affect the ability of the SSF Power subsystem to perform its design function. The finding does not represent an immediate safety concern because the chart recorder was modified so that it did not send an output signal to the SSF control and protection logic circuit.

The licensee's failure to ensure the post-modification testing was adequate to verify the modification did not affect the SSF Power subsystem's ability to perform its design function was a performance deficiency (PD). The PD was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Equipment Performance and adversely impacted the cornerstone objective in that the modification would have prevented the SSF DG from starting and supplying power to the SSF. The safety significance of this finding was To Be Determined pending completion of a Phase III risk analysis. The finding was directly related to the cross-cutting area of Human Performance under the Procedural Compliance aspect of the Work Practices component because the licensee failed to ensure station modification program requirements were followed in the development of post-modification testing. [H.4(b)] (Section 1R18)

Inspection Report# : [2011002](#) (*pdf*)

Inspection Report# : [2011003](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to adequately protect risk significant and safety-related systems, structures or components (SSCs) from cold weather conditions.**

An NRC-identified non-cited violation (NCV) of TS 5.4.1.a was identified for the licensee's failure to implement procedures to ensure equipment associated with cold weather protection of risk significant and safety-related systems, structures or components (SSC's) was in-service and functional prior to the onset of cold weather. This issue was entered into the licensee's corrective action program as PIP O-10-9308. Corrective actions taken include expediting maintenance on equipment determined to be non-functional, assigning an individual as a cold weather protection point-of-contact and revising/developing procedures to ensure similar deficiencies do not occur in the future.

The licensee's failure implement cold weather procedures was a performance deficiency (PD). The PD was more than minor because, if left uncorrected, it would have the potential to become a more significant safety concern in that safety-related or risk significant SSC's could be adversely affected by cold ambient temperatures. The finding was of very low safety significance (Green) because the finding did not result in the likelihood of a reactor trip at the same time that mitigation equipment or associated functions would not be available. The finding involved the cross-cutting area of Human Performance under the Management Oversight aspect of the Work Practices component in that the licensee failed to provide the appropriate management oversight to ensure the activities required to prepare the plant for cold weather conditions were completed prior to the onset of cold weather. [H.4.c] (Section 1R01)

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: FIN Finding

**Failure to prescribe procedures for inspecting the east penetration room floor seals**

An NRC-identified finding was identified for the licensee's failure to verify the operability of the East Penetration Room (EPR) expansion joint floor seals for all three units since 2006. Selected Licensee Commitment (SLC) Surveillance Requirement (SR) 16.9.11a.7 required the licensee to verify the operability of auxiliary building (AB) floor seals every eighteen months.

The licensee's failure to ensure that the required EPR expansion joint floor seal inspections were performed as required by SLC SR 16.9.11a.7 was a PD. The PD was more than minor because, if left uncorrected, it would have the potential to become a more significant safety concern in that the floor seals could further degrade and affect the function of the flood

outlet devices (FOD) to protect safety-related related equipment from flooding after a HELB in the EPR. The inspectors determined that the finding was of very low safety significance (Green) because the degradation the EPR floor seals did not result in the loss of operability or functionality of equipment they were designed to protect. The cause of this finding was directly related to the "complete, accurate, and up-to-date design documentation, procedures and work packages" aspect of the Resources component of the Human Performance cross-cutting area, in that, procedures and work packages to perform the surveillance were not updated following the FOD modification. [H.2(c)] (Section 1R06)

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to install structural rebar as required by instructions and drawings.**

An NRC-identified non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, was identified for the licensee's failure to adhere to drawings and instructions during the installation of rebar in QA-1 structures prior to concrete placement. The inspectors identified two examples where rebar installation did not meet the concrete coverage requirements specified in ACI Code 117-06. This violation has been entered into

the licensee's corrective action program as PIPs O-10-9091 and O-10-9351.

The licensee's failure to follow approved drawings and instructions for construction of QA-1 structures was a PD. The PD was more than minor because, if left uncorrected, insufficient concrete coverage on the rebar could lead to rebar corrosion and challenge the integrity of the QA-1 structures under construction. The finding was of very low safety significance (Green) because the finding did not result in the actual loss of function of the PSW duct bank, the Emergency Condensate Cooling Water pipe, or the PSW Building roof. The finding was directly related to the cross-cutting area of Human Performance under the "Procedural Compliance" aspect of the "Work Practices" component because the licensee failed to effectively ensure workers followed procedures and written guidance in the performance of their activities. [H.4(b)] (Section 1R18)

Inspection Report# : [2010005](#) (pdf)

**Significance:**  Dec 17, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to properly evaluate potentially degraded conditions for potential impact on operability or functionality.**

•Green. An NRC-identified Non-cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the licensee's failure to evaluate degraded or nonconforming conditions and perform operability determinations or functionality assessments as prescribed in procedure OMP 2-01, Duties and Responsibilities of On-Shift Operations Personnel. The inspectors determined that the licensee routinely failed to evaluate known conditions adverse to quality documented in work orders and work requests for potential impact on the operability or functionality of systems, structures or components (SSC's).

The failure to evaluate work orders (WOs) or work requests (WRs) for potentially degraded or nonconforming conditions as required by OMP 2-01 was a performance deficiency (PD). This PD was more than minor because, if left uncorrected it had the potential to lead to a more significant safety concern. The failure to evaluate potential conditions adverse to quality as prescribed in OMP 2-01 could result in the licensee failing to determine that a degraded or nonconforming condition could affect the system's ability to perform its safety function. The finding was determined to have very low safety significance (Green) because the finding did not represent an actual loss of safety function of a system or train. This finding has a cross cutting aspect in the area of Human Performance associated with the component of Work Practices because licensee management failed to define and effectively communicate expectations regarding procedural compliance such that personnel follow procedures [H.4(b)].

Inspection Report# : [2010009](#) (pdf)

**Significance:**  Dec 17, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to adequately monitor performance of the standby shutdown facility HVAC system as required by 10 CFR 50.65**

•Green. An NRC-identified non-cited violation of 10 CFR 50.65(a)(2), was identified for failure to demonstrate that Standby Shutdown Facility (SSF) Ventilation system performance was being effectively controlled through the preventive maintenance (PM) program, or place the system in 10 CFR 50.65(a)(1) status due to SSF Heating Ventilation and Air Conditioning (HVAC) system maintenance rule functional failures beyond established performance criteria.

The failure to perform adequate performance or condition monitoring on the SSF HVAC system was a performance deficiency (PD). This PD was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective in that the licensee failed to demonstrate effective control of the SSF HVAC system through appropriate preventive maintenance. The finding was determined to have very low safety significance (Green) because it did not result in the actual loss of safety function of one or more non-Technical Specification equipment trains, designated as risk-significant per 10CFR50.65, for greater than 24 hours. The cause of the finding was directly related to the human performance crosscutting aspect associated with resources, for the licensee not ensuring their maintenance rule procedures were adequate to provide

clear and accurate directions on how to classify functional failures. [H.2(c)].

Inspection Report# : [2010009](#) (pdf)

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## Barrier Integrity

**Significance:**  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to promptly identify and correct an adverse condition affecting operability of letdown line containment isolation valves**

An NRC-identified non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified for the licensee's failure to promptly identify and correct a condition adverse to quality. The licensee failed to identify and correct a degraded condition associated with containment isolation valves 1HP-5, 2HP-5 and 3HP-5 following the identification of a degraded condition on valve 1HP-5. The licensee restored closing margin to the Unit 1 valve during its refueling outage which began April 2, 2011, by installing a permanent modification on the valve actuator. An interim modification was installed on June 11, 2011, for Unit 2, and on June 10, 2011, for Unit 3 to restore closing margin to those valves.

The licensee's failure to promptly identify the degraded condition of 2HP-5 and 3HP-5 and adequately correct the condition on 1HP-5 as required by 10 CFR 50, Appendix B, Criterion XVI, was a performance deficiency (PD). The PD was more than minor because it was associated with the Barrier Integrity cornerstone attribute of Design Control and adversely impacted the cornerstone objective because the degraded condition had the potential to result in a containment bypass pathway. The inspectors determined a Phase 3 analysis was required because the finding represented a potential containment bypass pathway that would not be isolable following certain events analyzed in Chapter 15 of the Updated Final Safety Analysis Report. A Phase 3 analysis was performed by a regional Senior Reactor Analyst (SRA) who determined that the finding was of very low safety significance (Green) because the line break Large Early Release Frequency (LERF), and the Station Blackout (SBO)/Standby Shutdown Facility (SSF) core damage frequency (CDF) results were less than  $1 \times 10^{-6}$ . The finding directly involved the cross-cutting area of Human Performance under the Conservative Assumptions and Safe Actions aspect of the Decision Making component, in that the licensee failed to demonstrate conservative decision making in their evaluation of the operability of the Units 1, 2, and 3 letdown line containment isolation valves. [H.1(b)] (Section 1R15)

Inspection Report# : [2011004](#) (pdf)

**Significance:**  Sep 30, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to verify adequate closure margin**

A self-revealing non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified when the licensee failed to follow their modification process. The licensee did not verify the valve actuator margin to be greater than the margin specified in procedure EDM 601, Engineering Change Manual, following internal changes to the reactor coolant system (RCS) letdown line outboard containment isolation valves (CIVs) on all three units. As a result, the CIVs would not have fully closed as required against all postulated differential pressures (dPs) for events defined in Chapter 15 of the Updated Final Safety Analysis Report. The licensee entered this issue into their Corrective Action Program (CAP) as Problem Investigation Program report (PIP) O-11-0218.

The licensee's failure to implement the modification process was a performance deficiency (PD). The PD was determined to be more than minor because it was associated with the Barrier Integrity cornerstone attribute of Design Control and adversely impacted the cornerstone objective in that the RCS letdown line outboard CIVs could not perform their design function to fully close during all postulated events. The inspectors determined that a Phase 3 analysis was required. A Phase 3 was performed by a regional SRA who determined this finding was of very low safety significance (Green) because the line break Large Early Release Frequency, and the Station Blackout/Standby Shutdown Facility core damage frequency results were less than  $1 \times 10^{-6}$ . No cross cutting aspects were identified

based on the issue not being indicative of current licensee performance. (Section 1R18)

Inspection Report# : [2011004](#) (*pdf*)

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## Emergency Preparedness

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## Occupational Radiation Safety

**Significance:** G May 19, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to take required compensatory actions for 1 and 2 RIA-40 condenser off-gas radiation monitor inoperability**

Green: An NRC-identified Non-Cited Violation (NCV) of Technical Specification 5.4.1.d, for failure to follow procedures NSD 513, "Primary to Secondary Leak Monitoring Program," and OP/0/A/1106/031, "Primary to Secondary Leak Rate Monitoring and Instrumentation," which required compensatory actions and compensatory sampling during certain times when RIA-40 (Condenser Off-Gas Radiation Monitor) was out of service. This violation was entered into the licensee's corrective action program under PIP O-10-06151.

The failure to recognize that the condenser off-gas radiation monitors were inoperable was a performance deficiency. This performance deficiency is more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone objective in that the capability to detect, quantify, and respond to primary to secondary leakage was degraded. The significance of this was determined to be of very low safety significance (Green) because the finding did not result in a loss of safety function. This finding had a cross-cutting aspect in the area of Problem Identification and Resolution under the Corrective Action Program component because the licensee failed to recognize that 1, 2 RIA-40 were inoperable, and to take appropriate corrective actions to address the issue in a comprehensive manner commensurate with its safety significance and complexity [P.1 (d)] (Section 2RS6).

Inspection Report# : [2011016](#) (*pdf*)

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## Public Radiation Safety

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## Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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## Miscellaneous

Last modified : January 04, 2012