

# Vogtle 2

## 1Q/2011 Plant Inspection Findings

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### Initiating Events

**Significance:**  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to inspect tube R1C2 of steam generator 2 during the steam generator eddy current examination in 2007**

•Green: An NRC identified non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, was identified for failure to adhere to steam generator eddy current examination procedures during the 2007 Unit 2 refueling outage. As a result, a tube inspection was missed. The missed tube inspection was completed during a March 2010 inspection and was found to be without significant degradation. The licensee entered the issue into their corrective action program as CR 2010103680.

The inspectors determined that the finding was more than minor because it was associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective of assuring that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the failure to adhere to steam generator tube inspection procedures resulted in a missed tube inspection and affected the assurance that barrier integrity was maintained. The finding was determined to be of very low safety significance because subsequent testing of the missed tube in March 2010 did not indicate tube degradation. This finding was determined to not have a cross-cutting aspect associated with it due to the timeframe of the event and that the cause of the event is not indicative of current plant performance. (Section 1R08.4)

Inspection Report# : [2010003](#) (*pdf*)

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### Mitigating Systems

**Significance:**  Mar 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Depressurization of main firewater header**

A self-revealing NCV of Vogtle Unit 1 operating license condition 2.G. and Vogtle Unit 2 operating license condition 2.G. was identified for failure to maintain the main firewater header pressurized. Specifically, in response to two firewater header low

pressure alarms, operations personnel failed to perform the steps listed in the alarm response procedure. This led to the inadvertent depressurization of the main firewater header. Once the licensee became aware of the system depressurization, the shift supervisor directed an operator to start the available jockey pump, and within a few minutes system pressure was restored. This event was entered into the licensee's corrective action program as CR 2010113782.

The finding is considered more than minor because it is associated with external events attribute of the Mitigating Systems cornerstone. Specifically, the performance deficiency adversely affected the protection against external events (fire) attribute of the Mitigating Systems cornerstone objective to ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. Both the Phase 1 and Phase 2 screening worksheets of IMC 0609, Appendix F, indicated that the violation was potentially greater-than-green. The regional Senior Reactor Analyst completed a Phase 3 evaluation. This evaluation concluded that the violation was of very low safety significance (Green). The inspectors determined that the cause of this finding was related to the Decision-

Making component of the Human Performance cross-cutting area due to operators using non-conservative assumptions in their decision making. [H.1(a)] (Section 40A5.2)

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

**Significance:**  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to correct instrument uncertainty associated with the ECCS accumulators**

An NRC-identified Green NCV of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was identified for failure to promptly correct an equipment deficiency. Specifically, in February 2006, the licensee identified an issue with the instrument uncertainty associated with the pressure transmitters installed on the emergency core cooling system (ECCS) accumulators. However, several outages later, the design change packages requiring the transmitter change out had been inexplicably deleted and the instrument uncertainty issue remains uncorrected.

This issue was more than minor because it was associated with a cornerstone attribute and adversely affected the objective of the Mitigating Systems cornerstone. Specifically, the performance deficiency was an equipment performance issue which affected the availability, reliability, and capability of the ECCS accumulators to respond to a loss of coolant accident. The finding was determined to be of very low safety significance (Green) because the finding did not result in the actual loss of safety function of a single train for greater than its technical specification (TS) allowed outage time. The inspectors determined that the cause of this finding was related to the Work Control component of the Human Performance cross-cutting area due to the licensee's failure to appropriately coordinate work activities by incorporating actions to address the impact of changes to the work scope on the plant and human performance [H.3(b)]. (Section 40A2.2)

Inspection Report# : [2010004](#) (pdf)

**Significance:** SL-IV Jul 16, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Violation of 10 CFR 50.71(e)(4) for Failure to Reflect Changes to Facility and Procedures in Final Safety Analysis Report Periodic Revisions**

The inspectors identified a Severity Level (SL) IV non-cited violation (NCV) of 10 CFR 50.71(e)(4) for the failure to reflect all changes made in the facility or procedures as described in the updated final safety analysis report (UFSAR) up to a maximum of six months prior to the date of filing of periodic updates to the UFSAR with the NRC. Licensee procedure NMP-ES-022, "DCP Site Approval, Implementation and Closure," Ver. 7.0 addressed the processing of documentation regarding design change packages (DCPs). Step 6.7.2.3 of this procedure required the modification engineer to assign an action item to the licensing document owner identified in the licensing document change request (LDCR). Licensee procedure NMP-AD-009, "Licensing Document Change Requests," Ver. 8.0 addressed the processing of LDCRs. NMP-AD-009 included updates to the UFSAR in the scope of LDCRs. This procedure did not contain any timeliness guidance regarding the completion of LDCRs which impacted the UFSAR to ensure compliance with the requirements of 10 CFR 50.71(e)(4). The licensee submitted Revision 15 of the UFSAR to the NRC on April 16, 2009. The inspectors identified five instances where DCPs were implemented which made changes to the facility or procedures as described in the UFSAR more than six months prior to the April 16, 2009 submittal. This finding was entered into the licensee's corrective action program as condition report (CR) 2010109181.

The failure to reflect all changes made in the facility or procedures as described in the UFSAR up to a maximum of six months prior to the date of filing of periodic updates to the UFSAR with the NRC is a performance deficiency. Traditional enforcement applies since this finding reflects an impact on the regulatory process in the form of timely and accurate reports to the NRC. This finding is more than minor consistent with Section XIII, Supplement I, D.6 of the NRC Enforcement Policy. This section of the enforcement policy states, in part, that a failure to update the FSAR as required by 10 CFR 50.71(e) in cases where the information is not used to make an unacceptable change to the facility or procedures is a SL IV violation. The team reviewed the five DCPs which were implemented greater than six months prior to the submission of Revision 15 of the UFSAR to the NRC and conducted focused queries of licensee CRs dating back to the implementation of the oldest of the five affected DCPs. The team was not able to find any occurrences where the lack of timely updates to the UFSAR resulted in an unacceptable change to the facility or

procedures.

The inspectors determined that the thorough evaluation of problems such that resolutions address causes and extent of conditions, as necessary was a significant cause of this performance deficiency. The licensee generated CR 2007107068 in June 2007 in response to a discovery that the FSAR did not reflect the changes associated with a DCP. The extent of condition of the corrective actions associated with this failed to identify that the LDCR procedure did not contain any timeliness guidance to ensure compliance with 10 CFR 50.71(e)(4). This is directly related to the Corrective Action Program component of the cross-cutting area of Problem Identification and Resolution (P.1.(c)).  
Inspection Report# : [2010007](#) (*pdf*)

**Significance:**  Jun 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to verify purchased equipment conformed to design specifications**

Green: A self revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion VII, Control of Purchased Material, Equipment, and Services, was identified for failure to establish measures to assure that purchased material, equipment, and services conform to the procurement documents. More specifically that safety-related EMAX breaker closing coils were capable of performing their safety related function. All affected EMAX breaker closing coils were replaced with a qualified 90V closing coil capable of continuous duty cycle.

This finding is more than minor because if left uncorrected, the failure to establish measures to assure that purchased material, equipment, and services conform to procurement documents could become a more significant safety concern. Additionally, it impacted the Reactor Safety Cornerstones of Mitigating Systems and Barrier Integrity in that, the failure to establish measures to assure that purchased material, equipment, and services conform to procurement documents to ensure that safety-related breakers are assembled and functionally tested correctly, impacted the design control and equipment performance (availability and reliability) attributes. This finding was determined to be of very low safety significance (Green) because it did not result in a loss of operability or functionality. This finding was determined to not have a cross-cutting aspect associated with it due to the timeframe of the event and that the cause of the event is not indicative of current plant performance. (Section 1R18)

Inspection Report# : [2010003](#) (*pdf*)

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## Barrier Integrity

**Significance:**  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to perform general visual examination of containment metallic liner in reactor vessel cavity underneath the reactor vessel**

The NRC identified a Green NCV of 10 CFR Part 50.55a, “Codes and Standards,” for the licensee’s failure to conduct a general visual examination of the Units 1 and 2 containment metallic liner around the reactor cavity underneath the reactor vessel. The licensee took corrective actions to conduct the required visual examinations in Unit 1, including ultrasonic testing (UT) thickness measurements to evaluate the condition of the liner, and initiated action items to examine the same area in Unit 2 during the next refueling outage. The licensee initiated Condition Report (CR) 2011104688 to address the issue through the Corrective Action Program (CAP) and conducted the required general visual inspection in Unit 1 containment and found no pitting or cracking in the area examined. In addition, the licensee performed UT thickness measurements in affected areas of the metallic liner to evaluate the liner thickness against the design criteria

The licensee’s failure to conduct a general visual examination of the containment metallic liner in the reactor cavity area underneath the reactor vessel in accordance with the American Society of Mechanical Engineers (ASME) Code, Section XI, Subsection IWE was a performance deficiency. The finding was more than minor because it was associated with the Design Control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective in that visual inspections of the containment metallic liner were not performed to provide reasonable assurance that

the liner remained capable of performing its intended safety function. The finding was of very low safety significance (Green) because the finding did not represent an actual open pathway in the physical integrity of the reactor containment. The finding has a cross-cutting aspect in the operating experience (OE) component of the area of problem identification and resolution because OE was not implemented and institutionalized through station procedures. [P.2.b] (Section 1R08)

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

**Significance:** G Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to utilize the Corrective Action Program to identify a condition adverse to quality**

An NRC identified non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, was identified for the failure of the licensee to identify within their CAP to correct a condition adverse to quality. Plant personnel had knowledge of 480V ABB EMAX circuit breaker failures caused by the upper right hand screw holding down the front cover of the circuit breaker contacting the breaker's closing mechanism, preventing the breaker from closing. The failure to identify and correct the cause of the breaker failures resulted in Containment Cooler Fan #8 being inoperable when the fan's breaker failed to close. The licensee wrote a Condition Report (CR 2010113375) on the Containment Cooler Fan breaker. Corrective actions included a temporary modification to remove the upper right hand screw from all of the 1E 480V ABB EMAX circuit breakers. The licensee further plans to restore the breakers to their original configuration with new shorter screws and apply a maximum torque value for the screws.

The finding is more than minor because it had a direct impact on the Containment Cooler breaker's ability to perform its safety related function; resulted in containment cooling train B being inoperable for 22 hours. The finding affected the Barrier Integrity Cornerstone due to reduced containment heat removal capability with a containment cooler inoperable. The finding was determined to be of very low safety significance (Green) because the loss of the cooler did not meet the criteria identified in IMC 609.04, Phase 1 - Initial Screening and Characterization of Findings, for the containment barrier which would result in the finding being greater than green. The finding is indicative of current licensee performance and the cause of the finding was related to the Corrective Action Program component of the Problem Identification and Resolution cross-cutting area. Specifically, the licensee does not implement a corrective action program with a low threshold for identifying issues. The licensee did not identify the 480V ABB breaker issues completely, accurately, and in a timely manner commensurate with their safety significance (P.1(a)). (Section 4OA2.2)

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

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## Emergency Preparedness

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## Occupational Radiation Safety

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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

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