

## Surry 2

# 2Q/2006 Plant Inspection Findings

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## Initiating Events

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## Mitigating Systems

**Significance:**  Feb 10, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

### **Non-Conservative ECA Procedure Setpoint for Operator Action to Secure LHSI and HHSI Pumps on Low RWST Level**

The team identified a Green, non-cited violation (NCV) of Technical Specification 6.4.A.3, Unit Operating Procedures and Programs, for a non-conservative emergency contingency action (ECA) procedure setpoint regarding low Refueling Water Storage Tank (RWST) level. Specifically, the licensee failed to adequately address the potential for vortexing at low RWST levels into the determination of the RWST level for operator action to secure low head safety injection and high head safety injection pumps drawing suction from the RWST, in Procedures 1,2-ECA-1.1, Loss of Emergency Coolant Recirculation, Rev. 23. When the NRC notified the licensee of this condition, the licensee entered it into the corrective action program, and proceeded to revise the ECA setpoint in the affected procedures.

This finding is greater than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring reliable, available, and capable systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance because no loss of safety function occurred and operators have been trained to identify loss of pump suction. This finding has been entered into the licensee's corrective action program as PIlant Issue S-2006-0334.

Inspection Report# : [2006006\(pdf\)](#)

**Significance:**  Sep 30, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to Translate a Design Change into Design Specifications**

A self-revealing non-cited violation of 10CFR50, Appendix B, Criterion III, Design Control, was identified for failure to correctly translate design changes into design specifications. The licensee developed a design change for the Unit 1 and Unit 2 charging pump lube oil cooler heat exchangers to prevent corrosion related tube failure. The licensee failed to transfer this design change into an applicable procurement specification to procure lube oil cooler heat exchangers with coated tubes.

The finding is determined to be more than minor because it affects the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capacity of systems that respond to initiating events to prevent undesirable consequences. The finding was associated with the equipment and human performance attributes of the cornerstone. The finding was evaluated using Manual Chapter 0609 and determined to be of low safety significance. The finding affects the Mitigating Systems Cornerstone for short term decay heat removal and is of low safety significance because it did not result in the actual loss of a safety system and is not risk significant in response to external events.

Inspection Report# : [2005004\(pdf\)](#)

**Significance:**  Aug 26, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Promptly Correct a Degraded Flow Condition on an Emergency Service Water Pump**

The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly correct a condition adverse to quality. The licensee identified, but did not promptly correct, a degraded flow condition on the 'A' Emergency Service Water Pump.

The finding was determined to be more than minor because it affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capacity of systems that respond to initiating events to prevent undesirable consequences. The finding was associated with the equipment performance and human performance attributes of the cornerstone. The finding affects the Mitigating Systems Cornerstone function of core decay heat removal and is of very low safety significance (Green) because it did not result in the loss of a safety function of a single train for greater than the Technical Specification allowed outage time and is not risk significant in response to external events (seismic, flood, and severe weather). The finding is also related to the cross-cutting area of problem identification and resolution because the cause of the degraded flow condition was not promptly corrected by the licensee.

Inspection Report# : [2005006\(pdf\)](#)

**G****Significance:** Aug 26, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Promptly Correct a Lubricating Oil Dilution Condition on an Emergency Service Water Pump**

The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly identify and correct a condition adverse to quality. The licensee identified, but did not promptly correct, a degrading trend in the lubricating oil associated with the 'B' Emergency Service Water Pump.

The finding was determined to be more than minor because it affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capacity of systems that respond to initiating events to prevent undesirable consequences. The finding was associated with the equipment performance and human performance attributes of the cornerstone. NRC Inspection Manual Chapter 0609, Appendix A was used to evaluate this finding. Phase 2 Significance Determination Process analyses determined that this finding is of very low safety significance (Green) because only one of the three trains of emergency service water was affected and only one train is required to mitigate the consequences of an accident. The finding is also related to the cross-cutting area of problem identification and resolution because the lubricating oil degradation condition was not promptly identified and corrected by the licensee.

Inspection Report# : [2005006\(pdf\)](#)**G****Significance:** Aug 26, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Promptly Correct High Moisture Content of the EDG Air Start System**

The team identified a non-cited violation for the failure to comply with 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly correct a condition adverse to quality. Specifically, the licensee failed to take timely corrective actions from a previous event in which corrosion products from the carbon steel air start system prevented the #2 Emergency Diesel Generator to start.

The event was determined to be more than minor because it affected the Mitigation System Cornerstone and affected the reliability of the emergency power system. The item was determined to be of very low safety significance (Green) because it did not result in the loss of a safety function of a single train for greater than the Technical Specification allowed outage time and is not risk significant in response to external events (seismic, flood, and severe weather). The finding is also related to the cross-cutting area of problem identification and resolution because the air dryer installation was not implemented in a timely manner

Inspection Report# : [2005006\(pdf\)](#)


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## Barrier Integrity

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## Emergency Preparedness

**W****Significance:** Mar 29, 2006

Identified By: NRC

Item Type: VIO Violation

**Failure of Exercise Critique to identify a RSPS weakness as a DEP PI opportunity Failure**

The NRC identified an apparent violation (AV) for failure of the licensee's exercise critique process to properly identify a weakness associated with a risk-significant planning standard (RSPS) that was determined to be a Drill/Exercise Performance (DEP) Performance Indicator (PI) opportunity failure during a full-scale exercise. The AV is associated with emergency preparedness planning standards 10 CFR 50.47(b)(14) and 10 CFR 50.47(b)(4), and the requirements of 10 CFR 50, Appendix E, IV.F.2.g. This finding was not entered into the licensee's corrective action program.

The failure of the licensee's exercise critique process was a performance deficiency. This finding was greater than minor because it was associated with the Emergency Preparedness Cornerstone. The finding affects the associated cornerstone objective to ensure that the licensee was capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The finding was an identified weakness that demonstrated a level of performance that could preclude effective implementation of the Emergency Plan in an actual emergency. This finding was also determined to potentially have greater significance because the licensee's exercise critique process failed to properly identify a weakness associated with a RSPS that was determined to be a DEP PI opportunity failure during a full-scale exercise.

NRC inspection report 05000280, 281/2006010, issued July 25, 2006, closed the apparent violation to a violation with a final significance of White for both Units 1 and 2. The violation, designated as 05000280, 281/2006010-01, is listed below.

10 CFR 50.47(b)(4) requires, in part, that a standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

10 CFR 50.47(b)(14) requires, in part, that periodic exercises be conducted to evaluate major portions of emergency response capabilities and deficiencies identified as a result of exercises be corrected.

10 CFR Part 50, Appendix E, Section IV.F.2.g, requires that all training, including exercises, shall provide for formal critiques in order to identify weak or deficient areas that need correction. Any weaknesses or deficiencies that are identified shall be corrected.

Contrary to the above, the licensee's formal critique of an emergency preparedness exercise conducted on February 7, 2006, failed to identify weak or deficient areas. Specifically, the exercise critique failed to identify that the Station Emergency Manager's Site Area Emergency event classification was an inaccurate classification.

Inspection Report# : [2006008\(pdf\)](#)

Inspection Report# : [2006010\(pdf\)](#)

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## Occupational Radiation Safety

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## Public Radiation Safety

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## Physical Protection

[Physical Protection](#) information not publicly available.

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## Miscellaneous

**Significance:** N/A Aug 26, 2005

Identified By: NRC

Item Type: FIN Finding

### Results of Problem Identification and Resolution Inspection

The team concluded that, in general, problems were properly identified, evaluated, and corrected. The licensee was effective at identifying problems, issues were prioritized, evaluated appropriately, and dispositioned in a timely fashion. Evaluations of significant problems were in general, of sufficient depth to determine the likely root or apparent causes, as well as, address the potential extent of the circumstances contributing to the problem and provide a clear basis to establish corrective actions. Corrective actions that addressed the causes of problems were generally identified and implemented. A recent licensee self-assessment identified several areas of improvement. Numerous corrective actions have been implemented as well as planned to address issues raised during the recent self-assessment. Significant changes to address issues, such as extent of condition review, ensure corrective actions match what was expected, and manage number of action items stemming from Plant Issues (PIs), are underway or planned. The team observed the corrective action review board as well as the Plant Issues Review Team (PIRT) and noted improvement in the quality of the resolution of PIs. Reviews of sampled operating experience information were comprehensive. Previous noncompliance issues documented as non-cited violations were properly tracked and resolved via the corrective action program. Based on discussions with plant personnel and the low threshold for items entered in the corrective action program database, the team concluded that workers at the site were free to raise safety concerns to their management.

Inspection Report# : [2005006\(pdf\)](#)

Last modified : August 25, 2006