

# Oconee 1

## 4Q/2007 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:**  Sep 30, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Failure To Promptly Identify A Condition Adverse To Quality**

A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified for failure to take timely corrective action to repair the Standby Shutdown Facility (SSF) air conditioning compressor #2. As a result, the SSF was unnecessarily inoperable for over one week. The inspectors determined that the licensee's failure to promptly repair the SSF air conditioning compressor #2 was a performance deficiency. This finding was more than minor because it affected the availability and reliability attribute of the Mitigating Systems Cornerstone, in that it reduced the reliability of the SSF air conditioning system, which was required to maintain building temperatures for both habitability and electrical equipment operability. The licensee determined that the SSF remained available as long as one of the two compressors was functional. However, in the event of the SSF being required, reduced capacity and reliability of the air conditioning system would have reduced the likelihood of successful operation of the SSF. The SSF was inoperable from September 4 - 7, 2007, while inadequate repairs were conducted, and again from September 7 - 13, 2007, while no action was taken. The SSF was available for most of this period because compressor #1 was functional. This finding was evaluated using the SDP and was determined to be of very low safety significance because there was no loss of safety function. The inspectors determined this finding was related to the cross cutting aspect of appropriate corrective action being taken in a timely manner [P.1.d], as described in the corrective action component of the problem identification and resolution cross cutting area (Section 1R19).

Inspection Report# : [2007004](#) (*pdf*)

**Significance:**  Jul 27, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Corrective Action Resulting in the Inoperability of Unit 1 Reactor Coolant Makeup Pump**

A non-cited violation of 10 CFR 50, Appendix B, Criterion XVI was identified by the NRC for failure to take adequate corrective action to prevent unexpected inoperability of the Unit 1 standby shutdown facility (SSF) reactor coolant makeup (RCMU) system during Unit 2 core offload.

The failure to promptly correct a condition adverse to quality involving proper control of Units 1 and 2 reactor core offload activities that ensure the SSF RCMU system remains operable during core offload was a performance deficiency. This finding is more than minor because it is associated with the human performance attribute of the mitigating systems cornerstone and affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance because it did not result in a loss of operability due to a design or qualification deficiency, did not represent an actual loss of safety function, and was not potentially risk significant due to possible external events. This finding directly involved the cross-cutting area of Problem Identification and Resolution under the "timely corrective action" aspect of the "Corrective Action Program" component, in that the licensee failed to take corrective actions for an identified condition that could and did impact the operability of the opposite unit SSF RCMU system during reactor core offload [P.1.(d)]. (Section 4OA2 a.(2).1)

Inspection Report# : [2007008](#) (*pdf*)

**G****Significance:** Jun 30, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Ensure Tagout Compatibility with Plant Conditions**

A self-revealing non-cited violation (NCV) of Technical Specification (TS) 5.4.1 was identified for failure to ensure a high pressure service water (HPSW) system tagout was compatible with overall plant conditions, in that the elevated water storage tank (EWST) was inadvertently isolated from the turbine building and auxiliary building. Consequently, the backup cooling water supply to the high pressure injection pump motors was unknowingly isolated. The inspectors determined that the finding was more than minor because it affected the reliability objective of the Equipment Performance attribute under the Mitigating Systems Cornerstone. The finding was potentially risk significant due to external initiating events (i.e., turbine building flood), because it involved degradation of a function specifically designed to mitigate a flooding event, and the loss of this system during a flooding event would degrade both trains of high pressure injection. The licensee performed a plant specific risk assessment to identify core damage sequences of concern. The staff reviewed this risk assessment and concluded that due to the low initiating event frequency and short exposure time, the finding was appropriately characterized as having very low safety significance. The inspectors determined that the cause of the finding was related to the work control aspect of the cross-cutting area of human performance [H.3(b)]. (Section 1R12)

Inspection Report# : [2007003](#) (*pdf*)**G****Significance:** Jun 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Meet the Minimum Licensed Operator Staffing Requirements as required by 10 CFR 50.54(m)(2)(i)**

The inspectors identified a non-cited violation (NCV) of 10 CFR 50.54 Conditions of a license, for failing to meet the minimum licensed operator staffing requirements as stated in 10 CFR 50.54(m)(2)(i). Between March 2003 and February 2007, seven Senior Reactor Operators (SROs) who had not satisfied all the requalification requirements stood licensed required positions which resulted in the staffing requirements of 10 CFR 50.54(m)(2)(i) not being met. This issue was entered into the licensee's corrective actions program and the extent of condition was properly assessed. This finding is more than minor because it is associated with the configuration control and equipment performance attributes of the Mitigating Systems Cornerstone and adversely affects the cornerstone objective to ensure the availability and reliability of systems that respond to initiating events. Because this finding was not suitable for SDP evaluation, it was reviewed by NRC management and determined to be of very low safety significance (Green). The finding is of very low safety significance because these SROs had not made errors related to qualifications while performing their licensed duties and had successfully completed other aspects of the requalification program, such as the biennial written examination and routine testing conducted throughout the requalification training period. (Section 1R11.2)

Inspection Report# : [2007003](#) (*pdf*)**G****Significance:** Mar 31, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Follow the Installation Procedure for the MDEFW Pump 1A Thrust End Bearing**

A self-revealing non-cited violation (NCV) of Technical Specification (TS) 5.4.1 was identified for failure to adequately implement the procedure requirements for thrust end bearing installation on motor driven emergency feedwater (MDEFW) Pump 1A, resulting in thrust bearing failure following extended pump operation in response to a Unit 1 reactor trip. The inspectors determined that the licensee's failure to adequately implement their procedure for thrust end bearing installation was a performance deficiency. The finding was considered to be more than minor because it affected the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. The finding was determined to be of very low safety significance since the pump operated for approximately 28 hours, which is greater than its 24-hour mission time. (Section 1R12)

Inspection Report# : [2007002](#) (*pdf*)

## Barrier Integrity

**Significance:**  Sep 30, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### Failure To Implement LTOP Controls

A self-revealing NCV of Technical Specification (TS) 3.4.12, Low Temperature Overpressure Protection (LTOP), was identified for failure to take the appropriate actions when administrative controls specified by TS 3.4.12 were required and not available. The inspectors determined that the licensee's failure to implement administrative controls to provide low-temperature, overpressure protection for the Reactor Coolant System (RCS) was a performance deficiency. In that not all RCS overpressure protection requirements were met, the finding was considered to be more than minor because it affected the barrier integrity cornerstone objective to provide reasonable assurance that the physical design barriers protect the public from radio-nuclide releases caused by accidents or events. In the event of an overpressure condition, a required control room alarm would not have functioned, which would have affected the operators' ability to recognize the event and take action. The likelihood of an overpressure condition and subsequent loss of inventory caused by an RCS overfill, actuation of pressurizer heaters, or loss of decay heat removal, was evaluated by a Phase III SDP analysis. Due to the low probability of the initiating events, the likelihood of appropriate operator action, and the availability of automatic overpressure protection, the finding was determined to be of very low safety significance. The inspectors determined the cause of this finding was related to the cross cutting area of Human Performance [H.2.a], within the specific component of Resources, and its aspect of minimizing long-standing equipment issues (Section 4OA3).

Inspection Report# : [2007004](#) (*pdf*)

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## Emergency Preparedness

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## Occupational Radiation Safety

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## Public Radiation Safety

**Significance:**  Jun 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

### Failure to conduct adequate QA activities to ensure waste shipments are characterized in accordance with 10 CFR 61.55

The inspectors identified a NCV of 10 CFR 20 Appendix G, Section III.A.3 for failure to conduct adequate Quality Assurance activities to ensure compliance with the waste characterization requirements of 10 CFR 61.55. Specifically, the licensee failed to properly evaluate the significance of changes between calendar year (CY) 2004 and CY 2005 for 10 CFR Part 61.55 carbon-14 (C-14) analysis results associated with primary coolant filter waste stream samples. The identified changes in the C-14 isotopic abundance and derived scaling factors for primary filters in CY 2005 could have resulted in the improper classification of radioactive waste shipped to a licensed burial site for final disposal. The licensee has entered this finding into their corrective action program for resolution under Problem Investigation Process report (PIP) O-07-02811. This example is more than minor because it adversely affects the program and process attribute of the Public Radiation Safety cornerstone, in that it involves an occurrence in the licensee's radioactive material transportation program that is contrary to NRC regulations. The finding was determined to be of low safety significance because the waste classification of primary filter shipments sent for disposal using the CY 2005 data was not changed by the differences in C-14 isotopic abundance that were identified. The cause of this finding is related to the self/independent assessment aspect of the cross-cutting area of Problem Identification and Resolution [P.3(a)]. (Section 2PS2)

## 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

**Significance:** N/A Jul 27, 2007

Identified By: NRC

Item Type: FIN Finding

### PI&R Summary

The inspectors concluded that, in general, problems were properly identified, evaluated, and corrected. The licensee was effective at identifying problems and entering them into the corrective action program (CAP) for resolution; however, several minor plant material condition deficiencies were identified during plant system walkdowns that had gone undetected by licensee personnel. The licensee maintained a low threshold for identifying problems as evidenced by the continued large number of Problem Investigation Process reports (PIP) entered annually into the CAP. Generally, the licensee properly prioritized issues and examined issues; although several minor problems were noted where lower significance issues were mis-categorized or the investigations lacked thoroughness. Formal root cause evaluations for significant problems were generally thorough and detailed. Corrective actions specified for problems were generally adequate; although, several minor problems were noted where corrective actions were not complete or not comprehensive. Audits and self-assessments were effective in identifying deficiencies in the CAP. Personnel at the site felt free to raise safety concerns to management and to resolve issues through the CAP.

Inspection Report# : [2007008](#) (*pdf*)

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