

## Oyster Creek 3Q/2003 Plant Inspection Findings

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### Initiating Events

**Significance:**  Dec 28, 2002

Identified By: Self Disclosing

Item Type: FIN Finding

#### **Inadequate procedures and personnel error cause (NOUE) offgas ignition**

An inadequate maintenance procedure resulted in the inadvertent ignition of Hydrogen gasses contained in the offgas system during air in-leakage testing. The procedure failed to provide instructions to properly isolate and vent the test device sample chamber from the process stream before ionizing the test sample chamber.

A self-revealing finding was identified. This finding is greater than minor because it had an actual impact of igniting the offgas system hydrogen gas, causing the main condenser offgas system to be isolated and therefore could be viewed as a precursor to a significant event. If the offgas system could not have been quickly restored, it would have caused a reactor scram. The finding is of very low significance because all mitigation systems were available during this event, the hydrogen ignition did not result in damage to the plant and was contained within a system designed for such events, and operators restored the offgas system before main condenser vacuum degraded to a trip condition. In addition, this finding had a human performance aspect, in that plant technicians proceeded to perform the test without a plant specific procedure and they did not fully adhere to the guidance provided with the equipment which had a direct causal affect on the event initiation.

Inspection Report# : [2002008\(pdf\)](#)

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### Mitigating Systems

**Significance:**  Jun 28, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Full alignment - Emergency Service Water and Containment Spray Systems I and II**

The inspectors identified a non-cited violation of Technical Specification 6.8.1 for failure to adequately maintain the Service Water System procedure on April 17, 2003. Specifically, the main control room copy of the procedure was not the latest revision and therefore did not reference valves added to the system during a modification which occurred in November, 2002. The finding adversely impacted the ability to determine the appropriate Service Water System standby status.

Inspection Report# : [2003003\(pdf\)](#)

**Significance:**  Jun 28, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

#### **No. 1 EDG Inop due to Weak Evaluation**

The inspectors identified a non-cited violation for failure to promptly identify and correct a condition adverse to quality in accordance with 10 CFR 50 App. B. Criterion XVI. Specifically, inadequate corrective actions and evaluations led to the inoperability of Emergency Diesel generator #1 on May 13, 2003. The inadequate corrective actions were taken after a normally full fuel oil sight glass was found half full.

Inspection Report# : [2003003\(pdf\)](#)

**Significance:**  Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to adhere to design control specifications**

A non-cited violation of 10 CFR 50 Appendix B, Criterion V was identified for failure to implement engineering instructions provided in an engineering change request document. AmerGen personnel installed three pipe fittings in the isolation condenser system using material which was specifically prohibited from use by the engineering document. Oyster Creek personnel had not adhered to procedural requirements governing the control of materials used for the installation of piping in the isolation condenser system.

This finding is greater than minor because it affected the design control attribute of the Mitigating Systems Cornerstone and could have affected the reliability of the isolation condenser system. The finding is of very low safety significance because the plant was not operational at the time and subsequent analysis verified the vent line modification was in compliance with the applicable Code and design requirements. In addition, this finding had a human performance aspect, in that plant technicians did not adhere to installation guidance provided in the modification package.

Inspection Report# : [2002008\(pdf\)](#)

**Significance:**  Dec 28, 2002

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

**Failure to maintain ST procedure acceptance criteria - SWS pump test**

A non-cited violation of Oyster Creek Technical Specification 6.8, Procedures and Programs, was identified for failure to have an adequate surveillance procedure for the emergency service water pump. AmerGen failed to maintain appropriate acceptance criteria in the quarterly emergency service water pump inservice test procedure.

The finding is considered more than minor because it is associated with the Mitigating Systems cornerstone attribute of procedure quality and affects the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. The finding is of very low safety significance because the finding was a qualification deficiency confirmed to not result in the loss of the safety function of the Emergency Service Water System.

Inspection Report# : [2002008\(pdf\)](#)

**Significance:**  Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Conduct Post-Maintenance Test for HCU 42-27**

A non-cited violation of Oyster Creek Technical Specification 6.8, Procedures and Programs, was identified for failure to adequately implement a Control Rod Drive system procedure. AmerGen declared a control rod operable, following maintenance work, without performing post-maintenance testing as required by the procedure.

The finding is considered greater than minor in that the issue was associated with the Mitigating System Cornerstone and potentially affected the scram function of a control rod in response to an initiating event. The finding is of very low safety significance because the control rod remained at the full in position (notch 00) throughout the performance of the maintenance work and no other control rods were concurrently inoperable.

Inspection Report# : [2002008\(pdf\)](#)

**Significance:**  Oct 12, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

### Identification and Resolution of Problems

The inspectors identified a non-cited violation of 10 CFR 50 App. B criterion XVI. AmerGen corrective actions for controlling accumulator pressure on the Control Rod Drive System Hydraulic Control Units did not prevent recurrence of the problem. Specifically, corrective actions taken in January 2002 to prevent exceeding the pressure limit permitted by Procedure 302.1, "Control Rod Drive System," were ineffective in preventing recurrence of the issue on July 25, 2002. This finding was considered to have very low safety significance using the SDP Phase 1 assessment and the inspector's review of immediate and subsequent corrective actions.

Inspection Report# : [2002007\(pdf\)](#)

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## Barrier Integrity

**Significance:**  Mar 28, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### Inadequate Correction Action for Failure of SBGTS Fan EF-1-8

Green. A non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI (Corrective Action) was identified. Licensee failed to adequately correct a significant condition adverse to quality such that a subsequent repeat problem occurred. This deficiency relates to the licensee's insufficient corrective actions following the trip of an exhaust fan in the standby gas treatment system (SBGTS). Two weeks after corrective actions were completed, the fan tripped again under similar circumstances. This finding is more than minor because the licensee failed to adequately identify and correct the cause of the fan trip, which resulted in the train not being capable of performing its intended function for its required 30 day mission time. This finding is similar to Example 4.f of NRC Manual Chapter 0612, Appendix E, in that the failure to implement adequate corrective action affected the function of the SBGTS train. However, this finding was determined to be of very low safety significance (Green) using Phase 1 of the At-Power Reactor Safety Significance Determination Process because the finding only represented a degradation of the radiological barrier function provided by the standby gas treatment system.

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Mar 28, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

### No. 1 SGTS Inop due to Wrong Damper Position in Operating Procedure

Green. A non-cited violation of Oyster Creek Technical Specification 6.8, Procedures and Programs, was identified for failure to have an adequate operating procedure for the Standby Gas Treatment System. The procedure did not ensure that system operability was maintained while the system was in a standby alignment.

A self-revealing finding was identified. The finding is considered greater than minor in that the issue was associated with Barrier Integrity Cornerstone due to the inadequate procedure leading to SGTS1 being inoperable for five days. The finding is of very low safety significance because it only represented a degradation of the radiological barrier function provided for by the standby gas treatment system. In addition, standby gas treatment system 2 was operable

during the entire time period system 1 was inoperable. This NCV was closed in IROC0302.

Inspection Report# : [2003002\(pdf\)](#)



**Significance:** Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to identify degraded condition - SGTS charcoal filter**

A non-cited violation of 10 CFR 50 Appendix B Criterion XVI, Corrective Actions, was identified for failure to adequately identify and correct a condition adverse to quality involving the continued operability of the No. 2 Standby Gas Treatment System charcoal filter. In May 2001, testing indicated that the charcoal filter efficiency would not remain fully operable for the ensuing test interval and this condition was not identified in a timely manner to ensure that corrective actions could be taken. Subsequent testing in October 2002, confirmed that the filter had degraded below the technical specified minimum efficiency during the surveillance interval.

The finding is considered greater than minor because it had an actual impact in that the No. 2 SGTS was inoperable. The finding is of very low safety significance because the finding only represented a degradation of the radiological barrier function provided for by the standby gas treatment system. In addition, this finding had a corrective action performance aspect, in that degraded or non-conforming conditions adverse to quality had not been identified in a timely manner to ensure appropriate corrective actions were taken.

Inspection Report# : [2002008\(pdf\)](#)



**Significance:** Dec 28, 2002

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

**Failure to maintain secondary containment configuration - trunnion room door**

A non-cited violation was identified during the performance of the primary containment isolation valve test on October 22, 2002, for failure to maintain the secondary containment configuration in accordance with technical specification 3.5.B, when the trunnion room door was opened and not administratively controlled, which resulted in a temporary loss of secondary containment. A self-revealing finding was identified. The finding is considered more than minor because the reactor safety barrier integrity cornerstone attribute of human performance was involved and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radio nuclide releases caused by accidents or events. The finding is of very low safety significance since the finding involved a BWR in a Cold Shutdown condition with time to boil being greater than 2 hours and reactor coolant system level less than 23 feet above the top of reactor flange and the inspector verified that secondary containment closure could be accomplished in sufficient time before a release of fission products, including the unavailability of AC power and the expected environmental condition in containment. In addition, this finding had a human performance aspect, in that plant operators did not adhere to directions provided to ensure that the trunnion room door was maintained closed and only opened for the short time for passage through the area as required by the licensee's administrative controls.

Inspection Report# : [2002008\(pdf\)](#)



**Significance:** Oct 12, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Permanent Plant Modifications**

The inspectors identified a Non-Cited Violation of Oyster Creek Technical Specification 6.8, Procedures and Programs. The inspectors found that AmerGen failed to maintain procedures No. 317, Feedwater System, and No. 202.1, Power Operation, following the installation of the Digital Average Power Range Monitor Flow Control Trip Reference Card permanent modification (Engineering Change Request 01-01193), which occurred during the week of September 1,

2002. Specifically, the feedwater system procedure was not revised to reflect a maximum core flow limitation, as prescribed in the vendors' analysis that was referenced in the 10 CFR 50.59 evaluation for the modification installation. This finding was considered to have very low safety significance using the SDP Phase 1 assessment, the inspector's review of immediate and subsequent corrective actions, and a review of control room logs, in which the inspector verified that the maximum core flow limitation was not exceeded.

Inspection Report# : [2002007\(pdf\)](#)

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## Emergency Preparedness

**Significance:**  Sep 11, 2003

Identified By: NRC

Item Type: FIN Finding

### **Failing to submit ANS system changes to FEMA for review and approval prior to making changes**

The licensee made changes to their ANS sometime in the late 1980s without prior review and approval from FEMA as per 44 CFR 350.14. But because a violation of FEMA requirements is outside of the NRC's purview, no enforcement action is being taken the NRC. Due to FEMA's evaluation that the licensee's changes would have been acceptable, this finding does not present an immediate safety concern. This issue was entered into the licensee's corrective action program (CAP 2002-0955). The licensee is aware that this change, and future changes to the ANS, must be submitted to FEMA for review and approval.

Inspection Report# : [2003008\(pdf\)](#)

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## Occupational Radiation Safety

**Significance:**  Jun 28, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to relocate WB dosimetry per RC procedure**

The inspectors identified a non-cited violation of Technical Specification 6.8.1(a) involving failure to implement a radiological controls procedure (RP-AA-210) for relocation of personnel whole-body dosimetry when working in radiation dose rate gradients. Specifically, on October 22, 2002, the primary/secondary dosimeters of four radiation workers, working in the reactor refueling cavity, were not relocated even though they worked in radiation dose-rate gradients requiring such relocation. Although the issue was documented in the licensee's dose assessment program, the issue had not been entered into the licensee's corrective action process and had not been identified as a Performance Indicator occurrence.

Inspection Report# : [2003003\(pdf\)](#)

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**Significance:**  Dec 28, 2002

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

### **Ineffective Problem Resolution - Self-Reading Dosimeter Alarms**

A NCV of TS 6.13 was identified for failure to establish fully effective problem resolution relative to recurring problems involving personnel failing to hear the integrated dose alarm of their electronic self-reading personnel dosimetry equipment and to promptly respond to such an alarm. A self-revealing finding was identified due to repeat events in violation of TS was more than minor in that worker safety could be impacted in similar circumstances if workers failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. SDP determined it was Green since no overexposure occurred, no substantial potential for an overexposure, and the licensee's ability to assess dose to workers was not affected. Therefore, the issues were determined to be of very low safety significance.

Inspection Report# : [2002008\(pdf\)](#)

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## Public Radiation Safety

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## Physical Protection

**Significance:**  Jun 28, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

### License Violation Due to Security Officer Inattentive to Duty

A self-revealing was identified. A non-cited violation of the Order Modifying License, dated February 25, 2002, and the prescribed "Interim Compensatory Measures for High Threat Environment (ICM)," relative to failure to maintain the Vehicle Barrier System as required by the ICM. Specifically, inattentiveness by security force personnel, who were assigned to a function that was prescribed by a specific ICM set forth by the Order Modifying License, resulted in a condition in which the Vehicle Barrier System (VBS) was not effectively maintained in accordance with the conditions of the Order Modifying License.

Inspection Report# : [2003003\(pdf\)](#)

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## Miscellaneous

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