

Oyster Creek 1Q/2006 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2006

Identified By: Self-Revealing

Item Type: FIN Finding

Untimely Corrective Actions Causes Unplanned Power Reduction Due to 'A' Feedwater Packing Leakage

A self-revealing finding was identified regarding untimely corrective actions when packing on the 'A' feedwater regulating valve failed on February 10, 2006, and resulted in an upset of plant stability. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions involved repairing the valve and replacing the packing.

This finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that challenge plant stability during power operation. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Operations," the inspectors conducted a Phase 1 SDP screening and determined the finding to be of very low safety significance (Green). The finding was of very low safety significance because the issue does not contribute to both the likelihood of a reactor trip and unavailability of mitigating equipment. The performance deficiency had a problem identification and resolution cross-cutting aspect. (Section 1R12)

Inspection Report# : [2006002\(pdf\)](#)

Significance:  Sep 23, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Follow Procedures

A self-revealing non-cited violation (NCV) of Technical Specification 6.8.1 was identified for failure to follow an abnormal operating procedure that resulted in the loss of the No. 1 North Intake Service Water Pump, the No.1 Emergency Service Water system and the associated containment spray heat exchangers. The licensee took immediate corrective actions which included the issuance of standing orders to reinforce management's expectations and provided interim guidance related to the shortcomings of the shift crew's performance.

This finding is greater than minor because the failure to follow the abnormal procedure impacted the control room's ability to adequately monitor intake levels and impacted prompt operator response actions due to decreasing intake level. This finding is associated with the cornerstone objectives of Initiating Events, Mitigating Systems and Containment Barriers Cornerstones. The attributes affected are protection against external factors such as loss of heat sink, equipment performance in availability and reliability, human performance in human error (pre-event), containment structure system and component and barrier performance. The cause of the finding is related to the cross-cutting element of human performance (personnel). (Section 2.0)

Inspection Report# : [2005011\(pdf\)](#)

Mitigating Systems

Significance:  Mar 31, 2006

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

'D' ESW Pump Start Failure

A self-revealing finding was identified regarding inadequate procedure quality when the 'D' emergency service water (ESW) pump did not start on December 19, 2005. A preventive maintenance procedure was not adequate to identify a degraded condition associated with a contact in the pump's circuit breaker prior to placing the breaker in service. This finding was determined to be a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." AmerGen's corrective actions included revising the procedure to ensure that resistance checks are performed on the contacts which could impact proper operation of the ESW pump breakers.

The finding was more than minor because it was associated with the procedure quality attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Phase I SDP screening and determined the finding to be of very low safety significance (Green). The finding was of very low safety significance because the issue was not a design or qualification deficiency that resulted in a loss of function, did not result in an actual loss of

safety function for a single train of equipment for greater than allowed by technical specifications, did not result in an actual loss of safety function of non-technical specification equipment considered risk significant in the maintenance rule program for greater than 24 hours, and was not screened as potentially risk significant from external events. The performance deficiency had a human performance cross-cutting aspect. (Section 1R12)

Inspection Report# : [2006002\(pdf\)](#)

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Significance: Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Maintenance Rule Reactor Building Floor Drain System (a)(2) Demonstration Invalidated

The inspectors identified that AmerGen did not identify and properly account for one repetitive maintenance preventable function failure (RMPFF) of the reactor building floor and equipment drain system. This resulted in AmerGen not demonstrating the effectiveness of preventative maintenance and the 10 CFR50.65(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," demonstration became invalid. This finding was of very low safety significance (Green) and determined to be a violation of 10 CFR 50.65(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." AmerGen's corrective actions included performing a maintenance rule (a)(1) determination and creating a preventive maintenance task to replace the isolation valve actuator and solenoid.

The finding was more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Phase I SDP screening and determined the finding to be of very low safety significance (Green). The finding was of very low safety significance (Green). The finding was of very low safety significance because the issue was not a design or qualification deficiency that resulted in a loss of function, did not result in an actual loss of safety function of a single train of equipment for greater than allowed by technical specifications, did not result in an actual loss of safety function of equipment considered risk significant in the maintenance rule program for greater than 24 hours, and was not screened as potentially risk significant from external events. The performance deficiency had a problem identification and resolution cross-cutting aspect.

Inspection Report# : [2005005\(pdf\)](#)

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Significance: Nov 04, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Provide Protection in Accordance with 10 CFR Part 50, Appendix R, Section III.G.2.

The team identified a non-cited violation of 10 CFR Part 50, Appendix R, Section III.G.2. AmerGen Energy included unapproved manual actions in their fire safe shutdown analyses and safe shutdown procedure to operate equipment necessary for achieving and maintaining hot shutdown. Several of these manual actions did not meet the requirements of Appendix R, Section III.G.2 and the NRC had not granted exemptions to allow these actions. In accordance with the guidance provided in inspection procedure 71111.05T, "Fire Protection," (issue dated: 02/18/05) this finding is greater than minor. The finding is of very low safety significance because the manual actions are reasonable and are expected to meet the criteria outlined in Enclosure 2 of inspection procedure 71111.05T.

Inspection Report# : [2005008\(pdf\)](#)

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Significance: May 27, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Design Control Associated with Containment Spray Suction Valves

The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, where the licensee did not maintain the containment spray system's capability to close the pump suction valves from an accessible location during the post-accident phase of a postulated accident. The controlling modification also introduced an unexpected suction valve operational anomaly and did not adequately test the completed modification.

This finding is greater than minor because it is associated with the Design Control attribute of the Mitigating Systems cornerstone, and affected the cornerstone's objective of providing containment spray and core spray system availability, reliability and capability to respond to a large break loss of coolant initiating event. Also, the finding is associated with the System and Barrier Performance attribute of the Barrier Integrity cornerstone (containment functionality aspect) and affected the cornerstone's objective of providing reasonable assurance that the containment will protect the public from radio nuclide releases caused by accidents or events. This finding was determined to be of very low safety significance based on the low frequency of a large loss of coolant accident concurrent with a passive failure of piping. (Section 1R21.2)

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

Significance: SL-IV May 27, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform an Adequate 10 CFR 50.59 Analysis (ESW Overboard)

The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.59 Changes, Tests, and Experiments, requirements for the failure to perform an adequate safety evaluation of a change to the facility. Specifically, the safety evaluation did not evaluate the potential for a new type of malfunction of an installed liner associated with the 30-inch overboard discharge line on the emergency service water (ESW) system.

This finding was addressed using traditional enforcement since it potentially impacts or impedes the regulatory process in that a required 10 CFR 50.59 evaluation was not adequate. This is contrary to the regulatory process that allows licensees to make changes without a license amendment provided that licensees comply with 10 CFR 50.59 process. The finding is more than minor because there was a reasonable likelihood that the change could have required Commission review and approval prior to implementation. However, the finding has been evaluated as very low safety significance (Green) because the liner was subsequently determined to have not have introduced a new malfunction that would impact on the ESW system. (Section 1R21.3)

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

Barrier Integrity

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Significance: Sep 30, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Maintain Primary Containment Penetration Integrity

A self-revealing non-cited violation (NCV) of Technical Specification (TS) 3.5.A.3 was identified for AmerGen's failure to maintain primary containment penetration integrity. On July 12, 2005, while conducting a primary containment isolation valve surveillance for the nitrogen supply system, the operators failed to adequately evaluate an unexpected indication on the drywell makeup flow recorder. Without pursuing other potential causes, AmerGen concluded that the nitrogen supply system inboard containment isolation valve was leaking by its closed seat and declared the inboard containment isolation valve inoperable. However, on July 13, 2005, AmerGen found that the local leak rate test (LLRT) connection cap located between the two isolation valves was missing. This condition resulted in the outboard containment isolation valve being rendered functionally operable. Amergen's failure to adequately access the plant indications resulted in the primary containment penetration not being properly isolated for a period of time greater than the TS action statement (after discovery).

This finding is considered more than minor because it was associated with the configuration control attribute of the barrier integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that containment will protect the public from radionuclide releases caused by accidents or events. The condition of concern is a failure of the inboard valve to isolate during a design basis accident. This violation has been determined to have a very low safety significance since there was not an actual open pathway in the physical integrity of reactor containment. This finding is related to the cross-cutting area of Human Performance. (Section 1R22)

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

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Significance: May 27, 2005

Identified By: NRC

Item Type: FIN Finding

Failure to Perform Containment Spray System Header Nozzle Inspections

The team identified a finding where the licensee was not performing spray nozzle and header inspections as specified in the Updated Final Safety Analysis Report (UFSAR).

The team determined that this finding was greater than minor because it is associated with Design Control attribute of maintaining containment functionality under the Barrier Integrity cornerstone objective to provide reasonable assurance that the containment will protect the public from radio-nuclide releases caused by accidents or events. This finding is of very low safety significance because the finding did not result in the actual loss of the safety function of the containment spray system. (Section 1R21.1)

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

Emergency Preparedness

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Significance: Sep 23, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Untimely State/Local Notification of UE

A self-revealing NCV of 10 CFR 50.47(b)(2) was identified in which state and local agencies were not notified within 15 minutes after declaring a UE. The licensee immediately re-trained shift managers in the offsite notification process and proper completion of the notification

form.

This finding is greater than minor because it affects the RO performance (actual event response) attribute of the EP cornerstone. Failure to notify offsite agencies in a timely manner impacts the EP cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the public health and safety during an emergency. Timely offsite notifications enable state and local agencies to make decisions for taking initial offsite response measures that could affect the general public. This finding is of very low safety significance because it was a failure to implement a Risk Significant Planning Standard during an actual event associated with the notification of a UE. The cause of this finding is related to the cross-cutting element of human performance (personnel). (Section 3.1)

Inspection Report# : [2005011\(pdf\)](#)

W

Significance: Sep 23, 2005

Identified By: NRC

Item Type: VIO Violation

EAL Matrix Not Reviewed For Declaring an Alert

An NRC-identified notice of violation (NOV) of 10 CFR 50.47(b)(4) was identified. This NOV, which has low to moderate safety significance, occurred because the Oyster Creek E-Plan EAL matrix was not properly utilized to determine if a plant parameter met the EAL threshold for declaring an emergency classification. This resulted in not recognizing during an actual event, that plant parameters met the EAL thresholds for declaring a UE and a subsequent Alert. Immediate corrective actions were taken in which shift crews were retrained on the implementation of E-Plan requirements.

The finding is greater than minor because it is associated with the EP cornerstone attribute of response organization (RO) performance (actual event response). It affects the cornerstone objective of ensuring the capability to implement measures to protect the health and safety of the public during an emergency. The licensee did not use the Oyster Creek E-Plan EAL matrix when plant parameters met the EAL thresholds for declaring a UE and a subsequent Alert. As a consequence, both the onsite and offsite EROs were not activated during actual Alert conditions. Had the event degraded further, the onsite ERO would not have been readily available to assist in the mitigation of the event and the offsite agencies could have been prevented from taking initial offsite response measures. This finding is of low to moderate safety significance because it constituted a failure to implement a Risk Significant Planning Standard during an actual event in which plant conditions met an Alert. The cause of the finding is related to the cross-cutting element of human performance (personnel).

Inspection Report# : [2005011\(pdf\)](#)

Occupational Radiation Safety

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Significance: Mar 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Administrative Control of High Radiation Area Keys

The inspectors identified that AmerGen did not properly implement administrative controls for locked high radiation area (HRA) access keys maintained under the control of operations personnel. This finding was determined to be a non-cited violation of technical specification 6.13.2, "High Radiation Area." As of the end of this inspection period, AmerGen was determining the appropriate corrective actions for this issue.

The finding was more than minor because it was associated with the program and process attribute of the occupational radiation safety cornerstone and affected the objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The finding was evaluated using IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," because it was an exposure control issue. The inspectors determined the finding to be of very low safety significance (Green) because it did not involve an As Low As Reasonably Achievable (ALARA) finding, it did not involve an overexposure, there was no substantial potential for an overexposure, and the ability to assess dose was not compromised. The performance deficiency had a problem identification and resolution cross-cutting aspect. (Section 2OS1)

Inspection Report# : [2006002\(pdf\)](#)

Public Radiation Safety

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Significance: Mar 31, 2006

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Unauthorized Unmonitored Effluent Discharge to the Environment

A self-revealing finding was identified regarding inadequate procedure adherence when work activities on the main condenser during a forced maintenance outage resulted in an unauthorized, unmonitored effluent discharge to the environment between January 31 and February 2, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." As of the end of this inspection period, AmerGen was determining the appropriate corrective actions for this issue.

The finding was more than minor because it was associated with the program and process attribute of the public radiation safety cornerstone and affected the objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. This finding was evaluated using IMC 0609, Appendix D, "Public Radiation Safety Significance Determination Process," because it was a radioactive effluent release program issue. The inspectors determined the finding to be of very low safety significance (Green) because AmerGen was able to assess the dose from the release of the radioactive effluent and the radiological release associated with the event was not greater than 10 CFR 50 Appendix I, "Numerical Guides for Design Objectives for Operation to Meet the Criterion 'As Low As Is Reasonably Achievable' for Radioactive Material in Light -Water-Cooled Nuclear Power Reactor Effluents" or 10 CFR 20.1301(d), "Dose Limits for Individual Members of the Public," regulatory limits. The performance deficiency had a human performance cross-cutting aspect. (Section 1R20)

Inspection Report# : [2006002\(pdf\)](#)

Physical Protection

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

Miscellaneous

Significance:  Sep 23, 2005
Identified By: NRC
Item Type: FIN Finding

Inadequate Root Cause Analysis

The inspectors identified a green finding for ineffective corrective actions in that the root cause analysis team did not correctly identify the amount of time Alert conditions existed during the August 6, 2005, event. AmerGen initiated some of their immediate corrective actions and their analysis of the significance of this event based on the Alert lasting for five minutes when it actually lasted for approximately 45 minutes. The licensee confirmed the error, revised the root cause analysis report and entered this issue into their corrective action program.

The finding was more than minor because if left uncorrected, it could have resulted in a more significant safety concern. Specifically, failure to accurately identify information pertaining to operating events can lead to deficiencies in corrective actions. Because this finding does not involve a violation of regulatory requirements, this finding is not suitable for SDP evaluation, but has been reviewed by NRC management and is determined to be a finding of very low safety significance. The cause of the finding is related to the cross-cutting element of problem identification and resolution. Section 4.0

Inspection Report# : [2005011\(pdf\)](#)

Last modified : May 25, 2006