Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Nov 10, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even

though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related

electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding

Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Barrier Integrity

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Aug 11, 2001

Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance:  May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. The licensee took appropriate compensatory action for the identified deficiencies. By letter dated August 28, 2001, the NRC issued the Final Significance Determination for a White Finding. The licensee has submitted an appeal to the NRC.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC

Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : April 01, 2002

Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Nov 10, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even

though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related

electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding

Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Barrier Integrity

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Aug 11, 2001

Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance: W May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. The licensee took appropriate compensatory action for the identified deficiencies. By letter dated August 28, 2001, the NRC issued the Final Significance Determination for a White Finding. The licensee has submitted an appeal to the NRC.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC

Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : April 01, 2002

Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up

The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Nov 10, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as

CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation

Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Barrier Integrity

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Aug 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance: W May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. The licensee took appropriate compensatory action for the identified deficiencies. By letter dated August 28, 2001, the NRC issued the Final Significance Determination for a White Finding. The licensee has submitted an appeal to the NRC.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Last modified : March 29, 2002

Oyster Creek

Initiating Events

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance:  Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance:  Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance:  Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Mitigating Systems

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC

Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Nov 10, 2001

Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems

The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Barrier Integrity

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Aug 11, 2001

Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance:  May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. The licensee took appropriate compensatory action for the identified deficiencies. By letter dated August 28, 2001, the NRC issued the Final Significance Determination for a White Finding. The licensee has submitted an appeal to the NRC.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Significance: N/A Feb 10, 2001

Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Last modified : March 28, 2002

Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available.

Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation

Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance:  Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance:  Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance:  Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance:  Nov 10, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance:  Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns

The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Barrier Integrity

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Mar 31, 2001

Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Significance: N/A Aug 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Public Radiation Safety

Physical Protection

Significance:  May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. The licensee took appropriate compensatory action for the identified deficiencies. By letter dated August 28, 2001, the NRC issued the Final Significance Determination for a White Finding. The licensee has submitted an appeal to the NRC.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC

Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : March 28, 2002

Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a

condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC

Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance:  Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance:  Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Significance:  Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance:  Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Nov 10, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Barrier Integrity

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Mar 31, 2001

Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Significance: N/A Aug 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Public Radiation Safety

Physical Protection

Significance:  May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. The licensee took appropriate compensatory action for the identified deficiencies. By letter dated August 28, 2001, the NRC issued the Final Significance Determination for a White Finding. The licensee has submitted an appeal to the NRC.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC

Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : March 27, 2002

Oyster Creek

Initiating Events

Significance: Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism

for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance:  Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance:  Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance:  Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance:  Nov 18, 2000
Identified By: NRC

Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Nov 10, 2001

Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Barrier Integrity

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Aug 11, 2001

Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance:  May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. The licensee took appropriate compensatory action for the identified deficiencies. By letter dated August 28, 2001, the NRC issued the Final Significance Determination for a White Finding. The licensee has submitted an appeal to the NRC.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC

Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : March 26, 2002

Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Nov 10, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1

evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Barrier Integrity

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing

The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Aug 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance: W May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. The licensee took appropriate compensatory action for the identified deficiencies. By letter dated August 28, 2001, the NRC issued the Final Significance Determination for a White Finding. The licensee has submitted an appeal to the NRC.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this

inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : March 01, 2002

Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.

Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
Violation of Technical Specification 6.8.1 for failure to follow procedures for clearance and tagging of the ESW Heat Trace System. This NCV was closed in report 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Nov 10, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation

Licensee Identified Violation, Surveillance Test
On October 18, 2001, following a surveillance test, operations failed to properly implement the procedure and declared SBGTS 2 operable even though the control switch for exhaust fan EF-1-9 was left in the "OFF" position during system restoration. The issue was not corrected until noticed 8.8 hours later by an oncoming operations shift. Section IR 4OA7. This NCV was closed in IROC0109.
Inspection Report# : 2001009*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems

The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance:  Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance:  Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance:  Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the 'A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
'C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the 'C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Barrier Integrity

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would

be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Aug 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee-Identified Violations, Radiation Practice
Technical Specification 6.11, the Oyster Creek Safety and Health Guide, and Site procedure 6630-ADM-4000.11, Rev. 3 require that personnel are to immediately exit the area upon an alarm of their electronic self-reading dosimetry (ESRD) and notify Radiation Protection. Contrary to this requirement, on February 28, 2001 (CAP O2001-0307) and on July 18, 2001 (CAP O2001-1155), personnel experienced ESRD dose-rate alarms and did not exit the area and report to radiation protection. These repetitive events were more than minor in that worker safety could be impacted if they failed to properly respond to alarming dosimeters in situations with the potential for unplanned radiation dose. However, the issues were determined to be of very low significance (GREEN) because the issues did not result in an over exposure, did not create a substantial potential for an over exposure and did not compromise the licensee's ability to assess dose to workers.
Inspection Report# : 2001007*(pdf)*

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance: W May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
On 05/30/01, during a force-on-force exercise, the OC security response strategy was insufficient to successfully interdict an adversary force. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event, which involved the loss of at least one complete target set; and also, was not the result of a broad programmatic problem. Per EGM 01-001, no enforcement action is being considered since it was revealed through the conduct of a force-on-force exercise. Appropriate compensatory actions were taken. On 08/28/01, the NRC issued the Final White Finding. The licensee has appealed. [NEW INFO] On 03/29/02, an inspection was conducted per IP 95001, which concluded that AmerGen effectively evaluated the finding, identified root and contributing causes, and established and implemented appropriate corrective actions. Per IMC 0305, this issue will only be considered in assessing plant performance for a total of four quarters from the date when the issue was identified. This FIN was closed in IR 2002-004 on 05/03/02.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues

in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : July 22, 2002

Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-

cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Jun 07, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control room ventilation air flow -Criteria XVI problem.
The inspectors identified a Non-Cited Violation for failure to promptly identify and correct a condition adverse to quality regarding a low air flow condition in Train "A" of the control room ventilation system (10 CFR Part 50 App B Crt XVI). The licensee had not adeqautely monitored and evaluated surveillance test trend data since at least 1996, to identify decreasing air flow measurements. Consequently, the condition had not been evaluated in the licensee's corrective action process, and neither has the condition been evaluated as acceptable nor have corrective actions been taken. This issue was more than minor because the condition could impact the habitibility and equipment qualification for the control room. The finding was evaluated using Phase 1 of the NRC SDP and determined to have very low significance (Green) since the equipment remained operable with no loss of safety function for the control room.
Inspection Report# : 2002003*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were

replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001
Identified By: Self Disclosing

Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance:  Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance:  Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance:  Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003

Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of

water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance:  Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance:  Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the ‘A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance:  Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
‘C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the ‘C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.
Inspection Report# : 2000005*(pdf)*

Barrier Integrity

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000

Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation

Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance: W May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
On 05/30/01, during a force-on-force exercise, the OC security response strategy was insufficient to successfully interdict an adversary force. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event, which involved the loss of at least one complete target set; and also, was not the result of a broad programmatic problem. Per EGM 01-001, no enforcement action is being considered since it was revealed through the conduct of a force-on-force exercise. Appropriate compensatory actions were taken. On 08/28/01, the NRC issued the Final White Finding. The licensee has appealed. [NEW INFO] On 03/29/02, an inspection was conducted per IP 95001, which concluded that AmerGen effectively evaluated the finding, identified root and contributing causes, and established and implemented appropriate corrective actions. Per IMC 0305, this issue will only be considered in assessing plant performance for a total of four quarters from the date when the issue was identified. This FIN was closed in IR 2002-004 on 05/03/02.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Jun 07, 2002
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The PI&R team concluded the implementation of the corrective action program at Oyster Creek was adequate. Problems were identified at an appropriate level. Problems were generally prioritized and evaluated in a timely manner; however, some contrary examples were identified, including a Green finding for not trending degrading performance for the control room ventilation system. Licensee identified and implemented corrective actions were implemented in a timely fashion, except for problems involving tagging. The team determined that while the licensee identified and evaluated a continuing trend in equipment clearance and tagging errors, the corrective actions to date have not been effective in improving performance, in disagreement with the licensee's March 2002 effectiveness review for these problems.

Inspection Report# : 2002003*(pdf)*

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance
Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : August 29, 2002

Oyster Creek

Initiating Events

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Equipment Alignment
The inspectors identified a Non-cited violation (Technical Specification 6.8.1) for failure to follow Procedure 322, "Service Water System," Attachment 1, requiring a service water vent valve be open. The service water pump failed to develop discharge pressure because the normally open pump casing vent valve was found closed. The inspector identified that the licensee failed to, promptly identify this issue in a corrective action document, verify positive configuration control of that specific valve and ensure that the appropriate configuration control had been maintained on that system. In response, the licensee documented the issue in their corrective action system (CAP 2001-0011) and performed an extent of condition review on all service water pumps in the intake area. This service water pump is used to provide cooling water for the turbine building and reactor building closed cooling systems. Loss of service water is modeled as a reactor trip initiating event if the circulating water system is not available. The failure of the service water pump to develop discharge pressure was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for initiating event because the alternate service water pump and the circulating water pumps were available. (Section 1R04) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Personnel Performance During Non-routine Plant Evolutions and Events
NO COLOR Human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations personnel exhibited a lack of system knowledge, poor self checking and inadequate shift oversight while performing a reactor start up (Section 1R14 and 4OA3). This led to an automatic reactor scram and subsequent excessive reactor vessel cooldown rate. Also, the inspectors noted poor procedural adherence and self checking issues while implementing the licensee's welding and fire protection procedures (Sections 1R05 and 1R08). The safety significance of these individual events was very low.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The amount of combustible materials stored in the turbine building was not evaluated per procedure 120.5, "Control of Combustibles." The inspector reviewed this issue in accordance with NRC manual chapter 609 and determined that amount of transient combustibles loaded in the turbine building and the smoking area located near the piles of debris could have contributed to a fire in the area. This issue was considered to have very low safety significance (Green). This issue was considered to have very low safety significance (Green). The failure to follow procedure 120.5, "Control of Combustibles," is a violation of Technical Specification 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." However, this violation is being treated as a non-cited violation, consistent with Section VI.A.1 of the Enforcement Policy. The licensee documented this issue in CAP 2000-1920. (NCV 05000219/2000-008-01) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Event Follow-up
The failure to implement a critical step in procedure 315.1, "Main Turbine Operation," because of operator knowledge deficiencies and inadequate control room oversight led to an automatic reactor scram. However, the issue is considered to be substantive with respect to the crosscutting issue of human performance. This is a violation of Technical Specification Section 6.8.1, "Procedures and Programs," and 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Therefore, in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process, this issue is considered to be a Non-Cited Violation (Green). This issue has been entered into the licensee's corrective action program as CAP 2000-1919. (NCV 05000219/2000-008-04) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Mitigating Systems

Significance: G Jun 07, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control room ventilation air flow -Criteria XVI problem.
The inspectors identified a Non-Cited Violation for failure to promptly identify and correct a condition adverse to quality regarding a low air flow condition in Train "A" of the control room ventilation system (10 CFR Part 50 App B Crt XVI). The licensee had not adeqautely monitored and evaluated surveillance test trend data since at least 1996, to identify decreasing air flow measurements. Consequently, the condition had not been evaluated in the licensee's corrective action process, and neither has the condition been evaluated as acceptable nor have corrective actions been taken. This issue was more than minor because the condition could impact the habitibility and equipment qualification for the control room. The finding was evaluated using Phase 1 of the NRC SDP and determined to have very low significance (Green) since the equipment remained operable with no loss of safety function for the control room.
Inspection Report# : 2002003*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC

Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013
Inspection Report# : 2001013*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1). The inspectors observed multiple examples of failure to follow a maintenance work order during an emergent 4160 volt safety related electrical cable replacement. Additionally, quality verification witness points were established but not verified by qualified inspectors. However, this failure was considered to have very low safety significance using the SDP phase 1 assessment since the post maintenance testing was successfully completed which indicated the cable in-service performance was satisfactory. This NCV was closed in IR 2001010.
Inspection Report# : 2001010*(pdf)*

Significance: G 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)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Routine Fire Protection Walkdowns
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report (UFSAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. For approximately 15 days, AmerGen personnel failed to take appropriate compensatory measure for an impaired fire barrier in the reactor building. This finding was determined to have very low safety significance due to the low combustible loading, fire detection capability, and fire suppression system availability in the area of concern. (Section 1R05)
Inspection Report# : 2001007*(pdf)*

Significance: G Jun 30, 2001

Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Emergent Relay Replacement for the Isolation Condenser Actuation Logic
Operators failed to adequately assess the risk prior to closing both of the isolation condenser motor operated valves inside containment to line the system up for a maintenance activity. This condition would have rendered the isolation condensers unavailable under station black out conditions and resulted in an entry to an unacceptable risk level according to the licensee's procedure. This violation of 10 CFR 50.65 (a)(4) is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the corrective action program as CAP 2001-1024 The finding was of very low significance because the isolation condenser valves were closed for a short duration.
Inspection Report# : 2001006*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
DC Voltage Drop Calculations
The team's review of the adequacy of the 125 Volts dc supplied to the 4160 Volt switchgear control circuits determined that the voltage drop calculation used non-conservative battery voltage inputs. The failure to use the correct inputs was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the fact the battery was new and had sufficient margin. (Section 1R21.2, DC Voltage Drop Calculation) This NCV was closed in IR 2001-005
Inspection Report# : 2001005*(pdf)*

Significance: G Apr 27, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Material Condition
The team's review of the material condition of the emergency diesel generators (EDGs) and their supporting systems determined that the apparent corrosion the licensee had identified on a fuel oil piping support had spread to the pipe itself and resulted in a pipe leak immediately following this onsite inspection. The failure to properly identify the degraded pipe and take adequate corrective action was determined to be of very low safety significance (Green) by the significance determination process screening process. This conclusion was based on the availability of the redundant EDG and the availability of the blackout gas turbines. (Section 1R21.3, Material Condition)
Inspection Report# : 2001005*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Identification and Resolution of Problems
The inspectors identified a Non-Cited Violation for failure to follow procedures (Technical Specification 6.8.1) regarding three job orders (JO), classified as nuclear safety related work, which did not include documentation of the lubrication applied to electrical equipment. JO#00547049 and JO#00547116 involved reactor building recirculation fan motor control center breaker contactors. JO#00541019 involved the racking mechanism for a containment spray pump motor 480 volt breaker. The issue affects the mitigating cornerstone since the reliability of nuclear safety related electrical equipment could be affected. However the failure to document the lubrication used in these job orders was considered to have very low safety significance using the SDP since the post maintenance testing was successfully completed, and there were no indications that the incorrect lubrication was applied in these instances. This NCV was closed in IR 2001-003
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Prioritization and Evaluation of Issues
The inspectors identified two examples of a Non-Cited Violation of 10CFR50 Appendix B, Criterion XVI for failure to promptly identify and correct a condition adverse to quality. The first example was in regard to a containment spray (CS) pipe support clamp that periodically rotated out of alignment. While this condition had been identified in numerous corrective action program documents since 1985, effective corrective action had not been implemented. Additionally, the evaluation did not identify the cause, which was determined to be a water hammer condition, or assess the affect on containment spray piping. The second example was in regard to a potential non-conservative assumption in the main steam line break (MSLB) analysis. While the issue was identified in 1996 and again in 1998, the evaluation had not been completed to support prompt corrective actions. These issues were considered to have very low safety significance because the licensee subsequently evaluated both issues and determined the CS piping remained operable and the plant remained within its design basis for the MSLB analysis. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Mar 16, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection
The inspectors identified a Non-Cited Violation for failure to maintain in effect all provisions of the of the approved fire protection program as described in the Updated Final Safety Analysis Report (SAR) as required by Oyster Creek Facility Operating License Condition 2.C.3. On February 26 through February 28, 2001, the licensee opened and mechanically blocked the two large roll-up fire doors separating the common A and B non-vital switchgear fire area from the individual C and D vital switchgear fire areas. Opening these doors created an expanded fire area enveloping all 4160 volt switchgear. The capability of the carbon dioxide system to achieve and maintain the gas concentration required to suppress a smoldering fire could not be confirmed as described in the SAR and Fire Hazards Analysis Report referenced in the SAR. Although the licensee instituted a continuous fire watch for this area, this compensatory measure was not adequate to maintain prompt manual fire suppression capability to the vital switchgear since the fire watch was not prepared with adequate instruction, specific training, or staged tools to unblock and close both roll-up doors with a reasonable probability of success in the event of a switchgear fire. Additionally compensatory back up suppression capability was not provided, and the fire brigade response was not preplanned to ensure responders would have the tools required to unblock and close the roll-up doors in the event of a fire. This issue was assessed using the SDP phase two evaluation and determined to have very low safety significance, in part, due to mitigating equipment not dependant on power from the 4160 volt switchgear or station batteries. This NCV was closed in IR 2001-003.
Inspection Report# : 2001003*(pdf)*

Significance: G Dec 30, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Adverse Weather Protection
The inspectors evaluated the licensee's failure to properly implement adequate procedures and controls during cold weather conditions. The frozen CST level instrument was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the normal source of water for the core spray system from the suppression pool was available. Additionally, an alternate source of water was available from the fire protection system. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because the licensee was able to take compensatory readings from other instrumentation. The inspectors identified this as a Non-cited violation for failure to assure that maintenance procedures adequately control equipment and take cold weather conditions into consideration. This resulted in the condensate storage tank (CST) local level instrument becoming frozen because the power supply for the heat trace equipment was

inadvertently de-energized for maintenance on an unrelated system (Technical Specification 6.8.1). (NCV 50-219/2000-009-01) This NCV was closed in IR 2000-009.
Inspection Report# : 2000009*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: FIN Finding
Refueling and Outage Activities
The drywell to torus downcomer foreign material exclusion (FME) covers were installed in a manner that was ineffective in preventing foreign material from entering the torus ring header. During a routine walkdown, the inspectors observed foreign material (i.e. hard hat) lodged in the downcomer region. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for mitigating systems because there was not an actual loss of safety function, the debris was removed from the drywell and torus areas, and an inspection of these areas was performed prior to reactor start-up.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
In March 2000, three acoustic monitors were replaced during a forced outage without assembling the connectors per the system engineer's recommendation. In July 2000, the ‘A' EMRV acoustic monitor failed requiring the licensee to request a notice of enforcement discretion from the NRC (IR 5000219/2000-06). This violation of 10 CFR 50 Appendix B, Criterion XVI is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Significance: G Aug 12, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
‘C' Emergency Service Water Pump Failure
GREEN. The inspectors evaluated the failure of the ‘C' emergency service water (ESW) pump. The licensee has experienced similar failures of ESW pumps and has not yet demonstrated a reliable permanent corrective action to resolve this problem. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation, because alternate ESW pumps were available to perform its safety function. There was no violation of NRC requirements because the licensee complied with the Technical Specifications limiting conditions for operations and action statements.
Inspection Report# : 2000006*(pdf)*

Significance: G Jul 01, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Risk Assessment and Emergent Work Evaluation
GREEN. The licensee identified that the charcoal absorption efficiency in standby gas treatment system (SGTS) 1 did not meet the requirements of ASTM D3803-1989. This issue was considered to be Green (very low safety significance) using the significance determination process (SDP) phase 1 evaluation, because the system was still capable of performing the safety function using the alternate train (SGTS 2). The failure to properly revise and implement a surveillance procedure was determined to be a non-cited violation. (NCV 50-219/2000-005-01) Mitigating Systems This NCV was closed in IR 2000-005.

Inspection Report# : 2000005*(pdf)*

Barrier Integrity

Significance: G 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)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Post Maintenance Testing
The inspectors identified a Non-cited violation for failure to follow procedures (Technical Specification 6.8.1) to remove a foreign material exclusion plug from the reactor building differential pressure transmitter as required by the job order. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter would be considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-02) (Section 1R19) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Temporary Plant Modifications
The inspectors identified a Non-cited violation for procedure 108.8, "Temporary Modification Control," which was inadequate to implement and control a temporary heater that was used during periods of freezing weather to maintain the reactor building differential pressure transmitter operable. This differential pressure transmitter is used by operators for entry into abnormal or emergency operating procedures to mitigate the release of fission products from the reactor building to the atmosphere. The failure of the reactor building differential pressure transmitter was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation for barrier integrity because the licensee was able to take compensatory readings from other instrumentation. (NCV 0500219/2000-010-03) (Section 1R23) This NCV was closed in IR 2000-010.
Inspection Report# : 2000010*(pdf)*

Significance: G Nov 18, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Inservice Inspection Activities
The licensee had not adhered to procedure requirements governing the control of special processes (welding) for work performed on the core spray and isolation condenser systems during the 18R refueling outage. Replacement and repair activities were conducted using alternate weld filler metals not specified in the weld procedures. This procedural adherence issue is a violation of Technical Specification, Section 6.8.1, "Procedures and Programs," and 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." These issues are being treated as a non-cited violation in accordance with the Section VI.A.1 of the NRC Enforcement Policy and the NRC Significance Determination Process. (NCV 05000219/2000-008-02) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Nov 18, 2000
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Personnel Performance During Non-routine Plant Evolutions and Events
The failure to maintain the reactor coolant system cooldown rate within the technical specifications limit of 100 degrees per hour, is a violation of NRC requirements. However, the technical specification bases considers 10 cooldowns exceeding 300 F/hr to be allowable during the lifetime of the facility, and the licensee has not exceeded this. In addition, because this was a depressurization event, the pressure within the reactor vessel followed the saturation curve and the licensee stayed within the pressure/temperature limitations of the reactor vessel. This issue was determined to be of very low safety significance, which resulted in a Green finding. (NCV 05000219/2000-008-03) This NCV was closed in IR 2000-008.
Inspection Report# : 2000008*(pdf)*

Significance: G Sep 30, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
Several examples of poor procedural adherence and inadequate supervision culminated in a personnel error during new fuel receipt and processing. This issue was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 evaluation. This violation of Technical Specification 6.8.1 is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the Enforcement Policy. This NCV was closed in 2000-007.
Inspection Report# : 2000007*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: N/A Mar 31, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee Identified Violations
A violation of very low significance was identified by the licensee and were reviewed by the inspector. Corrective

actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7. This NCV was closed in IR 2001-002.
Inspection Report# : 2001002*(pdf)*

Public Radiation Safety

Physical Protection

Significance:  May 10, 2001
Identified By: NRC
Item Type: FIN Finding
Physical Protection
On 05/30/01, during a force-on-force exercise, the OC security response strategy was insufficient to successfully interdict an adversary force. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate. This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event, which involved the loss of at least one complete target set; and also, was not the result of a broad programmatic problem. Per EGM 01-001, no enforcement action is being considered since it was revealed through the conduct of a force-on-force exercise. Appropriate compensatory actions were taken. On 08/28/01, the NRC issued the Final White Finding. The licensee has appealed. [NEW INFO] On 03/29/02, an inspection was conducted per IP 95001, which concluded that AmerGen effectively evaluated the finding, identified root and contributing causes, and established and implemented appropriate corrective actions. Per IMC 0305, this issue will only be considered in assessing plant performance for a total of four quarters from the date when the issue was identified. This FIN was closed in IR 2002-004 on 05/03/02.
Inspection Report# : 2001011*(pdf)*

Miscellaneous

Significance: N/A Jun 07, 2002
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The PI&R team concluded the implementation of the corrective action program at Oyster Creek was adequate. Problems were identified at an appropriate level. Problems were generally prioritized and evaluated in a timely manner; however, some contrary examples were identified, including a Green finding for not trending degrading performance for the control room ventilation system. Licensee identified and implemented corrective actions were implemented in a timely fashion, except for problems involving tagging. The team determined that while the licensee identified and evaluated a continuing trend in equipment clearance and tagging errors, the corrective actions to date have not been effective in improving performance, in disagreement with the licensee's March 2002 effectiveness review for these problems.
Inspection Report# : 2002003*(pdf)*

Significance: N/A Feb 10, 2001
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Human Performance

Problem identification and human performance errors were identified in the initiating event and barrier integrity cornerstone areas. Operations and maintenance personnel exhibited inadequate procedural adherence with respect to service water system configuration control and reactor building differential pressure transmitter operability. In addition, the licensee identified these issues in the operators shift logs but did not promptly enter them into their corrective action program. (Sections 1R04, 1R19 and 1R23) The safety significance of these individual events was very low.
Inspection Report# : 2000010*(pdf)*

Significance: N/A Jul 01, 2000
Identified By: NRC
Item Type: FIN Finding
Cross-cutting Issues
NO COLOR. Poor communications, procedural adherence and work control practices resulted in significant personnel errors during maintenance activities on safety related equipment. These errors include, one instance of a failure to properly remove an installed temporary jumper on a hydraulic control unit prior to returning the unit to service and one instance of performing electrical troubleshooting activities on an inservice pump breaker that can receive an automatic start signal. While the risk of these individual events was low, the number of maintenance related events this inspection period indicated a problem with work control practices, communications and the quality of review regarding completed work activities.
Inspection Report# : 2000005*(pdf)*

Last modified : December 02, 2002

Oyster Creek

Initiating Events

Significance: G 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)*

Mitigating Systems

Significance: G 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: G 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: G 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: G 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)*

Significance: G Jun 07, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control room ventilation air flow -Criteria XVI problem.
The inspectors identified a Non-Cited Violation for failure to promptly identify and correct a condition adverse to quality regarding a low air flow condition in Train "A" of the control room ventilation system (10 CFR Part 50 App B Crt XVI). The licensee had not adeqautely monitored and evaluated surveillance test trend data since at least 1996, to identify decreasing air flow measurements. Consequently, the condition had not been evaluated in the licensee's corrective action process, and neither has the condition been evaluated as acceptable nor have corrective actions been taken. This issue was more than minor because the condition could impact the habitibility and equipment qualification for the control room. The finding was evaluated using Phase 1 of the NRC SDP and determined to have very low significance (Green) since the equipment remained operable with no loss of safety function for the control room.
Inspection Report# : 2002003*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control Rod Drive Partial Equipment Condition and Alignment Verification
The inspectors identified a Non-Cited Violation for failure to assure that design control measures were in place regarding deviation from original design replacement parts on the Control Rod Drive system (10 CFR 50 Appendix B, Criterion III). The inspectors identified two hydraulic control units that had water accumulator belly band clamps which were not of the original design and had not been evaluated by engineering for use on the system. However, the failure to evaluate the adequacy of the replacement part was considered to have very low safety significance (Green) using the Significance Determination Process (SDP) phase 1 assessment since the band clamps in question were replaced within 24 hours of initial notification of the issue and a subsequent engineering evaluation determined the replacement part to be equivalent. This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. (NCV 50-219/01-13-01) This NCV was closed in IR2001013.
Inspection Report# : 2001013*(pdf)*

Significance: G Feb 09, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Event Follow-up
The inspectors identified a Non-Cited Violation for failure to correct a significant condition adverse to quality identified in 1999, 2000, and again in 2001 (10 CFR 50 Appendix B, Criterion XVI). This condition, associated with degraded control circuit components within 480 volt breakers, is more than minor since multiple failures of a safety related breaker could have a credible impact on safety. The issue affects mitigating systems including containment spray, core spray and control rod drive pumps. The finding was evaluated using an NRC SDP phase 2 assessment and determined to have very low safety significance (Green). This violation is being treated as a Non-Cited Violation (NCV) consistent with section VI.A.1 of the NRC Enforcement Policy. The licensee entered this issue into the CAP (02002-0157). (NCV 50-219/01-13-02) This NCV was closed in IR2001013

Inspection Report# : 2001013*(pdf)*

Barrier Integrity

Significance: G 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: G 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: G 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)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G 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)*

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: N/A Jun 07, 2002
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The PI&R team concluded the implementation of the corrective action program at Oyster Creek was adequate. Problems were identified at an appropriate level. Problems were generally prioritized and evaluated in a timely manner; however, some contrary examples were identified, including a Green finding for not trending degrading performance for the control room ventilation system. Licensee identified and implemented corrective actions were implemented in a timely fashion, except for problems involving tagging. The team determined that while the licensee identified and evaluated a continuing trend in equipment clearance and tagging errors, the corrective actions to date have not been effective in improving performance, in disagreement with the licensee's March 2002 effectiveness review for these problems.
Inspection Report# : 2002003*(pdf)*

Last modified : March 25, 2003

Oyster Creek
1Q/2003 Plant Inspection Findings

Initiating Events

Significance: G 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)*

Mitigating Systems

Significance: G 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: G 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: G 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: G 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)*

Significance: G Jun 07, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Control room ventilation air flow -Criteria XVI problem.
The inspectors identified a Non-Cited Violation for failure to promptly identify and correct a condition adverse to quality regarding a low air flow condition in Train "A" of the control room ventilation system (10 CFR Part 50 App B

Crt XVI). The licensee had not adeqautely monitored and evaluated surveillance test trend data since at least 1996, to identify decreasing air flow measurements. Consequently, the condition had not been evaluated in the licensee's corrective action process, and neither has the condition been evaluated as acceptable nor have corrective actions been taken. This issue was more than minor because the condition could impact the habitibility and equipment qualification for the control room. The finding was evaluated using Phase 1 of the NRC SDP and determined to have very low significance (Green) since the equipment remained operable with no loss of safety function for the control room.
Inspection Report# : 2002003*(pdf)*

Barrier Integrity

Significance: G 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: G Mar 28, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Post Maintenance Testing
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: G 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: G 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: G 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)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G 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)*

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: N/A Jun 07, 2002
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The PI&R team concluded the implementation of the corrective action program at Oyster Creek was adequate. Problems were identified at an appropriate level. Problems were generally prioritized and evaluated in a timely manner; however, some contrary examples were identified, including a Green finding for not trending degrading performance for the control room ventilation system. Licensee identified and implemented corrective actions were implemented in a timely fashion, except for problems involving tagging. The team determined that while the licensee identified and evaluated a continuing trend in equipment clearance and tagging errors, the corrective actions to date have not been effective in improving performance, in disagreement with the licensee's March 2002 effectiveness review for these problems.
Inspection Report# : 2002003*(pdf)*

Last modified : May 30, 2003

Oyster Creek
2Q/2003 Plant Inspection Findings

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)*

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: G 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: G 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: G 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: G 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)*

Barrier Integrity

Significance: G 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: G 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: G 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: G 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: G 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)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G 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)*

Significance: G 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)*

Public Radiation Safety

Physical Protection

Significance: G 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)*

Miscellaneous

Last modified : September 04, 2003

Oyster Creek
3Q/2003 Plant Inspection Findings

Initiating Events

Significance: G 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)*

Mitigating Systems

Significance: G 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: G 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: G 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: G 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: G 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: G 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)*

Barrier Integrity

Significance: G 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: G 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: G 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: G 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: G 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)*

Emergency Preparedness

Significance: G 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)*

Occupational Radiation Safety

Significance: G 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)*

Significance: G 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)*

Public Radiation Safety

Physical Protection

Significance: G 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)*

Miscellaneous

Last modified : December 01, 2003

Oyster Creek
4Q/2003 Plant Inspection Findings

Initiating Events

Significance: Jun 28, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Service Water System Procedure Quality
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)*

Mitigating Systems

Significance: TBD Dec 31, 2003
Identified By: Self Disclosing
Item Type: AV Apparent Violation
Finding Regarding the May 2003 4160 V Cable Fault & Loss of the 1C 4160 V Bus
On May 20, 2003, the 1C 4160 VAC vital bus was lost because of a fault on the feeder cable from the EDG 1 output breaker. The cable fault occurred because AmerGen Engineering failed to identify in Nov. 2001, following another 4160 V cable failure, that the cable in question was of a type and in an adverse environment that rendered it susceptible to an identical fault. As a result, AmerGen took no action to evaluate, test and/or replace this cable in spite of that event and an identical failure in 1996 of the same cable, subject to similar adverse environmental conditions, on EDG 2.
Inspection Report# : 2003005*(pdf)*

Significance: Sep 10, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Operator error causes loss of 480V vital bus 1A2
An operator failed to follow Procedure 610.3.115, "Core Spray System 1 Instrument Channel and Level Bistable Calibration and System Operability Test." As a result, the operator tripped the feeder breaker to Bus 1A2 as opposed to tripping the breaker for Core Spray Pump 1A. This resulted in de-energizing the bus and its associated equipment. This equipment included two of the four loops of core spray and containment spray systems. Control Room operators determined the cause of the failure and restored power to the bus approximately 1 hour and 15 minutes later. No plant transient occurred as a result of this evaluation.
Inspection Report# : 2003005*(pdf)*

Significance: G 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)*

Barrier Integrity

Significance: G 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: G 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)*

Emergency Preparedness

Significance: G 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)*

Occupational Radiation Safety

Significance: G 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)*

Public Radiation Safety

Physical Protection

Significance: G 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)*

Miscellaneous

Last modified : March 02, 2004

Oyster Creek
1Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Jun 28, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Service Water System Procedure Quality
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)*

Mitigating Systems

Significance: W Dec 31, 2003
Identified By: NRC
Item Type: VIO Violation
Finding Regarding the May 2003 4160 V Cable Fault & Loss of the 1C 4160 V Bus
On May 20, 2003, the 1C 4160 VAC vital bus was lost because of a fault on the feeder cable from the EDG 1 output breaker. The cable fault occurred because AmerGen Engineering failed to identify in Nov. 2001, following another 4160 V cable failure, that the cable in question was of a type and in an adverse environment that rendered it susceptible to an identical fault. As a result, AmerGen took no action to evaluate, test and/or replace this cable in spite of that event and an identical failure in 1996 of the same cable, subject to similar adverse environmental conditions, on EDG 2.
Inspection Report# : 2003005*(pdf)*

Significance: G Sep 10, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Operator error causes loss of 480V vital bus 1A2
An operator failed to follow Procedure 610.3.115, "Core Spray System 1 Instrument Channel and Level Bistable Calibration and System Operability Test." As a result, the operator tripped the feeder breaker to Bus 1A2 as opposed to tripping the breaker for Core Spray Pump 1A. This resulted in de-energizing the bus and its associated equipment. This equipment included two of the four loops of core spray and containment spray systems. Control Room operators determined the cause of the failure and restored power to the bus approximately 1 hour and 15 minutes later. No plant transient occurred as a result of this evaluation.
Inspection Report# : 2003005*(pdf)*

Significance: G 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)*

Barrier Integrity

Emergency Preparedness

Significance: G 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)*

Occupational Radiation Safety

Significance: G 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)*

Public Radiation Safety

Physical Protection

Significance: G 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)*

Miscellaneous

Last modified : May 05, 2004

Oyster Creek
2Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct a Condition Adverse to Quality - RRCS Voltage Control Circuit
The inspectors identified a non-cited violation of 10 CFR part 50 Appendix B, Criterion XI for failure to adequately correct a condition adverse to quality affecting the recirculation pump voltage regulator card which resulted in the trip of the 'D' recirculation pump during four loop full power operations. The licensee replaced the failed components on the voltage regulator cards of all five recirculation loops and have returned them to service. This finding is greater than minor because it had an actual impact on the operations of the plant. It increased the likelihood of a plant transient, therefore it had an impact on effect on initiating events. The finding is of very low safety significance because the finding does not contribute to a primary or secondary system LOCA initiator, the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available, and the finding does not contribute to the likelihood of a fire or internal/external flood. This finding has a cross-cutting aspect of PI&R in that engineering evaluation of External Operating Experience and corrective action implementation was inadequate to prevent a similar condition at the site.
Inspection Report# : 2004003*(pdf)*

Significance: N/A May 21, 2004
Identified By: Self Disclosing
Item Type: FIN Finding
Identification and Resolution of Problems
The team determined that AmerGen was generally effective at identifying discrepant conditions at an appropriate threshold and entering them into the corrective action program. Identified issues were typically prioritized appropriately and in a timely fashion and were properly evaluated commensurate with the potential safety significance. Overall, the evaluations reasonably identified the causes of the problem, the extent of the condition, and provided for corrective actions to address the causes. However, in some cases, the corrective action program was not effectively used to evaluate, resolve and prevent problems. There were also some examples where issue evaluations were not complete, and corrective actions were not effective at resolving problems. Audits and self-assessments identified adverse conditions and negative trends, and were generally self-critical and consistent with the team's findings. On the basis of interviews conducted, the team determined that plant staff personnel were familiar with and utilized the corrective action program to identify problems.
Inspection Report# : 2004006*(pdf)*

Mitigating Systems

Significance: G Jun 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadvertent Loss of Shutdown Cooling
A self-revealing event involving an inadvertent loss of shutdown cooling resulted in a Green finding and non-cited violation (NCV) for failure to establish and maintain appropriate procedural requirements for the operation of the shutdown cooling system, as prescribed by Technical Specification 6.8.1 and the Oyster Creek Operation Quality Assurance Plan. The finding was more than minor because the procedural control deficiency actually led to a trip of the shutdown cooling system isolation actuation logic and a resultant loss of the normal shutdown decay heat removal capability. Therefore, this deficiency affected the availability of the decay heat removal function during shutdown operational conditions.
Inspection Report# : 2004003*(pdf)*

Significance: TBD Jun 30, 2004
Identified By: Self Disclosing
Item Type: AV Apparent Violation
Human Performance Event Failure to Follow Procedures Led to Failure of Cooling System for EDG #1 on May 17, 2004.
A self-revealing event involving an inadvertent loss of the #1 Emergency diesel generator (EDG) cooling fan resulted in identifying a preliminary White finding and apparent violation for failure to implement appropriate procedural requirements for the maintenance of the #1 EDG system during an overhaul conducted April 26 - 30, 2004, as prescribed by Technical Specification 6.8.1. The finding was more than minor because it affected the mitigation system cornerstone objective to ensure the availability, reliability, and capability of systems (emergency AC power) that respond to initiating events to prevent undesirable consequences and the related attributes of equipment performance, human performance, and procedure quality. A Phase 1 SDP determined that the finding represented a degradation in both the mitigating systems and barrier integrity cornerstones, because both core spray and containment spray systems were affected. Since the #1 EDG was inoperable for a period of 17 days (April 30 - May 17), exceeding the Technical

Specification Allowed Outage Time of 7 days, the finding required a Phase 2 approximation. The Phase 2 evaluation of this finding resulted in a White finding based on a Loss of Offsite Power and failure to recover power. Also, this finding has a cross-cutting aspect of human performance in that technicians failed to follow written procedures when replacing the fan belts for the #1 emergency diesel generator during a two-year overhaul in April 2004.
Inspection Report# : 2004003*(pdf)*

Significance: G May 21, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Corrective Actions for Mode Switch Failure on August 14, 2003
The finding was determined to be more than minor because it negatively affected the mitigating systems cornerstone attribute of human performance. Failure to place the reactor mode switch into the shutdown position following a reactor scram would be expected to result in a loss of the normal heat sink and complicate the event response. The finding was of very low safety significance (Green), because it was not a design or qualification deficiency, and it did not result in an actual loss of safety function for risk-significant equipment with respect to internal or external events. Additionally, the team noted that the heat sink would be recoverable from an event of this type.
Inspection Report# : 2004006*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Operability Evaluations
A Green NCV was identified for failure to adequately maintain the ESW Pump Trouble alarm response procedure as required by Technical Specification (TS) 6.8.1., due to an erroneous operability evaluation compensatory action.
Closed in IR OC0402
Inspection Report# : 2004002*(pdf)*

Significance: W Jan 22, 2004
Identified By: NRC
Item Type: VIO Violation
Finding Regarding the May 2003 4160 V Cable Fault & Loss of the 1C 4160 V Bus
On May 20, 2003, the 1C 4160 VAC vital bus was lost because of a fault on the feeder cable from the EDG 1 output breaker. The cable fault occurred because AmerGen Engineering failed to identify in Nov. 2001, following another 4160 V cable failure, that the cable in question was of a type and in an adverse environment that rendered it susceptible to an identical fault. As a result, AmerGen took no action to evaluate, test and/or replace this cable in spite of that event and an identical failure in 1996 of the same cable, subject to similar adverse environmental conditions, on EDG 2.
Inspection Report# : 2003005*(pdf)*

Significance: G Sep 10, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Operator error causes loss of 480V vital bus 1A2
An operator failed to follow Procedure 610.3.115, "Core Spray System 1 Instrument Channel and Level Bistable Calibration and System Operability Test." As a result, the operator tripped the feeder breaker to Bus 1A2 as opposed to tripping the breaker for Core Spray Pump 1A. This resulted in de-energizing the bus and its associated equipment. This equipment included two of the four loops of core spray and containment spray systems. Control Room operators determined the cause of the failure and restored power to the bus approximately 1 hour and 15 minutes later. No plant transient occurred as a result of this evaluation.
Inspection Report# : 2003005*(pdf)*

Barrier Integrity

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Operator Failure to Recognize Degraded Secondary Containment Airlock
The inspectors identified a Green finding and non-cited violation (NCV) for failure to identify a condition adverse to quality when a secondary containment airlock door was found open resulting in a momentary violation of Technical Specification 3.5.B and Procedure 312.10, "Secondary Containment Control," Rev. 8. The airlock doors function to ensure secondary containment integrity and to support the SGTS capability to maintain a negative pressure in the reactor building and minimize ground level releases of radioactive materials. The finding was more than minor because the failure to timely identify the condition adverse to quality for the airlock door led to inappropriate controls being used to override the interlock. If left

uncorrected this condition could have led to a more significant event involving a failure of airlock because of interlock failure. Also, this condition is associated with the Reactor Safety Barrier Integrity Cornerstone and affects the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radio nuclide releases from accidents or events. In addition to the PI&R cross-cutting aspect in failing to identify a condition adverse to quality, this finding has a cross-cutting aspect of human performance, in that operators failed to adhere with procedures and expectations in response to the degraded secondary containment airlock door.
Inspection Report# : 2004003*(pdf)*

Emergency Preparedness

Significance: G 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)*

Occupational Radiation Safety

Significance: G Mar 31, 2004
Identified By: Self Disclosing
Item Type: FIN Finding
ALARA Planning and Controls
A self-revealing finding having very low safety significance associated with occupational radiation exposure reduction was identified. During the Fall 2002 refueling outage, conduct of reactor vessel reassembly activities resulted in 12.4 person-rem of collective radiation exposure on an exposure estimate of 6.5 rem. This work activity was 90% above its estimate. FIN opened in IR OC0402
Inspection Report# : 2004002*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Access Control to Radiologically Significant Areas
On March 18, 2004, the inspector determined that secondary keys for locked High Radiation Areas were not maintained under the administrative control of operations and/or radiation protection supervision on duty to prevent unauthorized entry. The keys were accessible to unauthorized personnel. This is a violation of Technical Specification 6.13.2. closed in IR OC0402
Inspection Report# : 2004002*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Radiation Monitoring Instrumentation and Protective Equipment
On March 18, 2004, the inspector identified that AmerGen was not functionally testing self-contained breathing apparatus (SCBAs) in accordance with the manufacturer's recommendations. This is a violation of 10 CFR50.47(b)(10) associated with failure to maintain protective measures for emergency workers. closed in IR OC0402
Inspection Report# : 2004002*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : September 08, 2004

Oyster Creek
3Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Green NCV was identified for failure to correct a condition adverse to quality affecting IRMs causing a reactor scram
A self-revealing non-cited violation of 10 CFR 50 Appendix B Criterion XVI was identified for failure to adequately correct a condition adverse to quality affecting the Intermediate Range Monitor (IRM) System which resulted in a reactor scram while at 2% power operations. The reactor protection system processed IRM Hi-Hi/INOP on channels 13, 14, and 18 IRMs, while operators were driving the Source Range Monitor (SRM) detectors into the core. AmerGen initiated an investigation into the issue and CAP O2004-1314 was written in order to document the associated corrective actions to prevent recurrence.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct a Condition Adverse to Quality - RRCS Voltage Control Circuit
The inspectors identified a non-cited violation of 10 CFR part 50 Appendix B, Criterion XI for failure to adequately correct a condition adverse to quality affecting the recirculation pump voltage regulator card which resulted in the trip of the 'D' recirculation pump during four loop full power operations. The licensee replaced the failed components on the voltage regulator cards of all five recirculation loops and have returned them to service.
This finding is greater than minor because it had an actual impact on the operations of the plant. It increased the likelihood of a plant transient, therefore it had an impact on effect on initiating events. The finding is of very low safety significance because the finding does not contribute to a primary or secondary system LOCA initiator, the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available, and the finding does not contribute to the likelihood of a fire or internal/external flood. This finding has a cross-cutting aspect of PI&R in that engineering evaluation of External Operating Experience and corrective action implementation was inadequate to prevent a similar condition at the site.
Inspection Report# : 2004003*(pdf)*

Significance: N/A May 21, 2004
Identified By: Self Disclosing
Item Type: FIN Finding
Identification and Resolution of Problems
The team determined that AmerGen was generally effective at identifying discrepant conditions at an appropriate threshold and entering them into the corrective action program. Identified issues were typically prioritized appropriately and in a timely fashion and were properly evaluated commensurate with the potential safety significance. Overall, the evaluations reasonably identified the causes of the problem, the extent of the condition, and provided for corrective actions to address the causes. However, in some cases, the corrective action program was not effectively used to evaluate, resolve and prevent problems. There were also some examples where issue evaluations were not complete, and corrective actions were not effective at resolving problems. Audits and self-assessments identified adverse conditions and negative trends, and were generally self-critical and consistent with the team's findings. On the basis of interviews conducted, the team determined that plant staff personnel were familiar with and utilized the corrective action program to identify problems.
Inspection Report# : 2004006*(pdf)*

Mitigating Systems

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
NCV was identified for an inadequate procedure that resulted in a loss of shutdown cooling
A self-revealing non-cited violation of Technical Specification 6.8.1 was identified because procedures for restoration of the shutdown cooling system were not adequate. This resulted in the loss of shutdown cooling while removing trip logic bypass jumpers in order to restore the shutdown cooling system to power operation standby readiness requirements in the plant technical specifications. Upon realization of the loss

of shutdown cooling system, plant operators returned the shutdown cooling system to operation.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadvertent Loss of Shutdown Cooling
A self-revealing event involving an inadvertent loss of shutdown cooling resulted in a Green finding and non-cited violation (NCV) for failure to establish and maintain appropriate procedural requirements for the operation of the shutdown cooling system, as prescribed by Technical Specification 6.8.1 and the Oyster Creek Operation Quality Assurance Plan. The finding was more than minor because the procedural control deficiency actually led to a trip of the shutdown cooling system isolation actuation logic and a resultant loss of the normal shutdown decay heat removal capability. Therefore, this deficiency affected the availability of the decay heat removal function during shutdown operational conditions.
Inspection Report# : 2004003*(pdf)*

Significance: TBD Jun 30, 2004
Identified By: Self Disclosing
Item Type: AV Apparent Violation
Human Performance Event Failure to Follow Procedures Led to Failure of Cooling System for EDG #1 on May 17, 2004.
A self-revealing event involving an inadvertent loss of the #1 Emergency diesel generator (EDG) cooling fan resulted in identifying a preliminary White finding and apparent violation for failure to implement appropriate procedural requirements for the maintenance of the #1 EDG system during an overhaul conducted April 26 - 30, 2004, as prescribed by Technical Specification 6.8.1. The finding was more than minor because it affected the mitigation system cornerstone objective to ensure the availability, reliability, and capability of systems (emergency AC power) that respond to initiating events to prevent undesirable consequences and the related attributes of equipment performance, human performance, and procedure quality. A Phase 1 SDP determined that the finding represented a degradation in both the mitigating systems and barrier integrity cornerstones, because both core spray and containment spray systems were affected. Since the #1 EDG was inoperable for a period of 17 days (April 30 - May 17), exceeding the Technical Specification Allowed Outage Time of 7 days, the finding required a Phase 2 approximation. The Phase 2 evaluation of this finding resulted in a White finding based on a Loss of Offsite Power and failure to recover power. Also, this finding has a cross-cutting aspect of human performance in that technicians failed to follow written procedures when replacing the fan belts for the #1 emergency diesel generator during a two-year overhaul in April 2004.
Inspection Report# : 2004003*(pdf)*

Significance: G May 21, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Corrective Actions for Mode Switch Failure on August 14, 2003
The finding was determined to be more than minor because it negatively affected the mitigating systems cornerstone attribute of human performance. Failure to place the reactor mode switch into the shutdown position following a reactor scram would be expected to result in a loss of the normal heat sink and complicate the event response. The finding was of very low safety significance (Green), because it was not a design or qualification deficiency, and it did not result in an actual loss of safety function for risk-significant equipment with respect to internal or external events. Additionally, the team noted that the heat sink would be recoverable from an event of this type.
Inspection Report# : 2004006*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate ESW Procedure due to poor operability evaluation
A Green NCV was identified for failure to adequately maintain the ESW Pump Trouble alarm response procedure as required by Technical Specification (TS) 6.8.1., due to an erroneous operability evaluation compensatory action.
Closed in IR OC0402
Inspection Report# : 2004002*(pdf)*

Significance: W Jan 22, 2004
Identified By: NRC
Item Type: VIO Violation
Finding Regarding the May 2003 4160 V Cable Fault & Loss of the 1C 4160 V Bus
On May 20, 2003, the 1C 4160 VAC vital bus was lost because of a fault on the feeder cable from the EDG 1 output breaker. The cable fault occurred because AmerGen Engineering failed to identify in Nov. 2001, following another 4160 V cable failure, that the cable in question was of a type and in an adverse environment that rendered it susceptible to an identical fault. As a result, AmerGen took no action to evaluate, test and/or replace this cable in spite of that event and an identical failure in 1996 of the same cable, subject to similar adverse environmental conditions, on EDG 2. This NOV closed in IR2004007, by Neil Della Greca.

Inspection Report# : 2003005*(pdf)*
Inspection Report# : 2004007*(pdf)*

Barrier Integrity

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
A self-revealing Green NCV was identified for failure to adequately correct a condition adverse to quality affecting a Main Steam Isolation Valve.affecting a Main Steam Isolation Valve.
A self-revealing Green NCV was identified for failure to adequately correct a condition adverse to quality affecting MSIV, NS04A, which resulted in the failure of the MSIV to close during testing. Contrary to 10 CFR 50 Appendix B, AmerGen failed to timely implement the installation of the back-seat modification provided in the 1993 GE SIL 568 and take proper action to reduce the MSIV susceptibility to rib guide wear and subsequent failure to close. This was entered into the AmerGen corrective action program under CAP O2004-2499.
Inspection Report# : 2004004*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
NCV was identified for failure to maintain the core thermal power below the licensed limit
A self-revealing non-cited violation of Operating License No. DPR-16, Section 2.C.(1) was identified because operators exceeded the licensed thermal power limit of 1930 MWt by approximately 0.4% for a period of approximately 19 hours. When identified, Oyster Creek operators reduced power until steady state core thermal power was below 1930 MWt.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Operator Failure to Recognize Degraded Secondary Containment Airlock
The inspectors identified a Green finding and non-cited violation (NCV) for failure to identify a condition adverse to quality when a secondary containment airlock door was found open resulting in a momentary violation of Technical Specification 3.5.B and Procedure 312.10, "Secondary Containment Control," Rev. 8. The airlock doors function to ensure secondary containment integrity and to support the SGTS capability to maintain a negative pressure in the reactor building and minimize ground level releases of radioactive materials. The finding was more than minor because the failure to timely identify the condition adverse to quality for the airlock door led to inappropriate controls being used to override the interlock. If left uncorrected this condition could have led to a more significant event involving a failure of airlock because of interlock failure. Also, this condition is associated with the Reactor Safety Barrier Integrity Cornerstone and affects the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radio nuclide releases from accidents or events. In addition to the PI&R cross-cutting aspect in failing to identify a condition adverse to quality, this finding has a cross-cutting aspect of human performance, in that operators failed to adhere with procedures and expectations in response to the degraded secondary containment airlock door.
Inspection Report# : 2004003*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 31, 2004
Identified By: Self Disclosing
Item Type: FIN Finding
ALARA Planning and Controls
A self-revealing finding having very low safety significance associated with occupational radiation exposure reduction was identified. During the Fall 2002 refueling outage, conduct of reactor vessel reassembly activities resulted in 12.4 person-rem of collective radiation exposure on

an exposure estimate of 6.5 rem. This work activity was 90% above its estimate. FIN opened in IR OC0402
Inspection Report# : 2004002*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Access Control to Radiologically Significant Areas
On March 18, 2004, the inspector determined that secondary keys for locked High Radiation Areas were not maintained under the administrative control of operations and/or radiation protection supervision on duty to prevent unauthorized entry. The keys were accessible to unauthorized personnel. This is a violation of Technical Specification 6.13.2. closed in IR OC0402
Inspection Report# : 2004002*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Radiation Monitoring Instrumentation and Protective Equipment
On March 18, 2004, the inspector identified that AmerGen was not functionally testing self-contained breathing apparatus (SCBAs) in accordance with the manufacturer's recommendations. This is a violation of 10 CFR50.47(b)(10) associated with failure to maintain protective measures for emergency workers. closed in IR OC0402
Inspection Report# : 2004002*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : December 29, 2004

Oyster Creek
4Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Green NCV was identified for failure to correct a condition adverse to quality affecting IRMs causing a reactor scram
A self-revealing non-cited violation of 10 CFR 50 App. B Crit. XVI was identified for failure to adequately correct a condition adverse to quality affecting the Intermediate Range Monitor (IRM) System, resulting in a reactor scram while at 2% power. The reactor protection system processed IRM Hi-Hi/INOP on channels 13, 14, and 18 IRMs, caused by EMI induced spiking through IRM cabling nicks and loose connections, while operators were driving the Source Range Monitor (SRM) detectors into the core.

This finding was more than minor because it resulted in a plant scram while the reactor was critical and can reasonably be viewed as a precursor to a significant event. This finding has a cross-cutting aspect of PI&R in that engineering evaluation and corrective actions implementation was inadequate to prevent repeat occurrence.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct a Condition Adverse to Quality - RRCS Voltage Control Circuit
The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criterion XI for failure to adequately correct a condition adverse to quality affecting the recirculation pump voltage regulator card which resulted in the trip of the 'D' recirculation pump during four loop full power operations. The licensee replaced the failed components on the voltage regulator cards of all five recirculation loops and have returned them to service.

This finding is greater than minor because it had an actual impact on the operating reactor recuirculation pumps. It increased the likelihood of a plant transient, therefore it had an effect on initiating events. The finding is of very low safety significance because the finding does not contribute to a primary or secondary system LOCA initiator, the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available, and the finding does not contribute to the likelihood of a fire or internal/external flood. This finding has a cross-cutting aspect of PI&R in that engineering evaluation of External Operating Experience was inadequate to prevent a similar condition at the site.
Inspection Report# : 2004003*(pdf)*

Mitigating Systems

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate Procedure Resulted in a Temporary Loss of Shutdown Cooling
A self-revealing non-cited violation of Technical Specification 6.8.1 was identified because procedures for restoration of the shutdown cooling system were not adequate. This resulted in the loss of shutdown cooling while removing trip logic bypass jumpers in order to restore the shutdown cooling system to power operation standby readiness requirements in the plant technical specifications. Upon realization of the loss of shutdown cooling system, plant operators returned the shutdown cooling system to operation.

This finding is more than minor because the procedural control deficiency actually led to a loss of the normal shutdown decay heat removal capability and affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: Self Disclosing

Item Type: NCV NonCited Violation
Inadvertent Loss of Shutdown Cooling
A self-revealing event involving an inadvertent loss of shutdown cooling resulted in a Green finding and non-cited violation (NCV) for failure to establish and maintain appropriate procedural requirements for the operation of the shutdown cooling system, as prescribed by Technical Specification 6.8.1 and the Oyster Creek Operation Quality Assurance Plan. The finding was more than minor because the procedural control deficiency actually led to a trip of the shutdown cooling system isolation actuation logic and a resultant loss of the normal shutdown decay heat removal capability. Therefore, this deficiency affected the availability of the decay heat removal function during shutdown operational conditions.
Inspection Report# : 2004003*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Human Performance Event Failure to Follow Procedures Led to Failure of Cooling System for EDG #1 on May 17, 2004.
A self-revealing event involving an inadvertent loss of the #1 Emergency diesel generator (EDG) cooling fan resulted in identifying a preliminary White finding and apparent violation for failure to implement appropriate procedural requirements for the maintenance of the #1 EDG system during an overhaul conducted April 26 - 30, 2004, as prescribed by Technical Specification 6.8.1. The finding was more than minor because it affected the mitigation system cornerstone objective to ensure the availability, reliability, and capability of systems (emergency AC power) that respond to initiating events to prevent undesirable consequences and the related attributes of equipment performance, human performance, and procedure quality. A Phase 1 SDP determined that the finding represented a degradation in both the mitigating systems and barrier integrity cornerstones, because both core spray and containment spray systems were affected. Since the #1 EDG was inoperable for a period of 17 days (April 30 - May 17), exceeding the Technical Specification Allowed Outage Time of 7 days, the finding required a Phase 2 approximation. The Phase 2 evaluation of this finding resulted in a preliminary greater than Green finding based on a Loss of Offsite Power and failure to recover power. A Phase 3 evaluation determined this finding to be Green. Also, this finding has a cross-cutting aspect of human performance in that technicians failed to follow written procedures when replacing the fan belts for the #1 emergency diesel generator during a two-year overhaul in April 2004.
Inspection Report# : 2004003*(pdf)*

Significance: G May 21, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Corrective Actions for Mode Switch Failure on August 14, 2003
The team identified an NCV of 10 CFR 50, Appendix B, Criterion XVI, which requires that prompt corrective actions be implemented for conditions adverse to quality. Specifically, AmerGen did not implement a planned corrective action to address a deficiency associated with operation of the reactor mode switch during a reactor trip on August 14, 2003.

The finding was determined to be more than minor because it negatively affected the mitigating systems cornerstone attribute of human performance. Failure to place the reactor mode switch into the shutdown position following a reactor scram would be expected to result in a loss of the normal heat sink and complicate the event response. The finding was of very low safety significance (Green), because it was not a design or qualification deficiency, and it did not result in an actual loss of safety function for risk-significant equipment with respect to internal or external events. Additionally, the team noted that the heat sink would be recoverable from an event of this type.
Inspection Report# : 2004006*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate ESW Procedure due to a Poor Operability Evaluation
A Green NCV was identified for failure to adequately maintain the Emergency Service Water (ESW) pump trouble alarm response procedure as required by Technical Specification (TS) 6.8.1., due to an erroneous operability evaluation compensatory action. The finding was more than minor in that it is associated with the equipment performance and procedural quality attributes for the Mitigating Systems cornerstone, and affected the Mitigating System's objective to ensure the raliability of systems that respond to initiating events to prevent undesirable consequences. Additionally, this finding was associated with the design control attribute of maintaining the functionality of the containment for the Barrier Integrity cornerstone.

Inspection Report# : 2004002*(pdf)*

Significance: W Jan 22, 2004
Identified By: NRC
Item Type: VIO Violation

Finding Regarding the May 2003 4160 V Cable Fault & Loss of the 1C 4160 V Bus
On May 20, 2003, the 1C 4160 VAC vital bus was lost because of a fault on the feeder cable from the EDG 1 output breaker. The cable fault occurred because AmerGen Engineering failed to identify in Nov. 2001, following another 4160 V cable failure, that the cable in question was of a type and in an adverse environment that rendered it susceptible to an identical fault. As a result, AmerGen took no action to evaluate, test and/or replace this cable in spite of that event and an identical failure in 1996 of the same cable, subject to similar adverse environmental conditions, on EDG 2.

This finding was more than minor because it was associated with the equipment performance attribute of the initiating events and mitigating systems cornerstones. A Phase 2 evaluation of this issue concluded that the finding was of low to moderate safety significance (White). The final NOV was reviewed and closed in supplemental inspection 2004007.
Inspection Report# : 2003005*(pdf)*
Inspection Report# : 2004007*(pdf)*

Barrier Integrity

Significance: G Dec 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Violation of TS 6.8.1 for Inadequate Written Startup Procedure Causing a Loss of Containment Integrity
A self-revealing event involving an inadvertent loss of the containment isolation function resulted in a Green finding and NCV for failure to establish and maintain appropriate procedural requirements for the operation of the containment vent isolation valves, as prescribed by TS 6.8.1 and the Oyster Creek Operational Quality Assurance Plan.

This finding is more than minor because it affects the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events and the related attributes of configuration control and procedure quality. The finding represented a degradation in the barrier integrity cornerstone, because both drywell vent containment isolation valves were open and the primary containment isolation logic was bypassed for each valve causing a loss of safety function for the containment barrier. Per Appendix H, Containment Integrity SDP for the containment barrier being degraded due to an actual open pathway. Table 6.2, Phase 2 Risk Significance for BWR Mark 1 Containment Types screened to Green because: although the finding resulted in the possible leakage rate from the drywell to the environment of >100% containment volume/day through the open vent system, the fault exposure time was very small (less than 2 hours). A cross-cutting aspect of human performance was identified in that: (1) the procedure development involved a human error in identifying the wrong switch listed in step 6.51.6, and (2) that the initial questioning of this action by an operator did not result in preventing the action and resultant loss of containment integrity.
Inspection Report# : 2004005*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Adequately Correct a Condition Adverse to Quality Affecting a Main Steam Isolation Valve.affecting a Main Steam Isolation Valve.
A self-revealing Green NCV was identified for failure to adequately correct a condition adverse to quality affecting MSIV, NS04A, which resulted in the failure of the MSIV to close during testing. Contrary to 10 CFR 50 Appendix B, AmerGen failed to timely implement the installation of the back-seat modification provided in the 1993 GE SIL 568 and take proper action to reduce the MSIV susceptibility to rib guide wear and subsequent failure to close. This was entered into the AmerGen corrective action program under CAP O2004-2499.

This finding is more than minor because if left uncorrected, it could have resulted in a more significant safety concern regarding barrier integroty. The finding has a cross-cutting aspect of PI&R in that engineering evaluation of external OE was inadequate to prevent a similar failure at the site.
Inspection Report# : 2004004*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Maintain the Core Thermal Power Below the Licensed Limit
A self-revealing non-cited violation of Operating License No. DPR-16, Section 2.C.(1) was identified because operators exceeded the licensed thermal power limit of 1930 MWt by approximately 0.4% for a period of approximately 19 hours. When identified, Oyster Creek operators reduced power until steady state core thermal power was below 1930 MWt.

The finding is more than minor because if left uncorected, reactor core thermal power could have exceeded the initial power level of 102% for certain analyzed plant events. The finding has a cross-cutting aspect of human performance in that operators failed to identify and respond to an

alarming condition in the Plant Computer System (PCS) that affected the heat balance calculation.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Operator Failure to Recognize Degraded Secondary Containment Airlock
The inspectors identified a Green finding and NCV for failure to identify a condition adverse to quality when a secondary containment airlock door was found open, resulting in a momentary violation of TS 3.5.B and Procedure 312.10, "Secondary Containment Control," Rev. 8. The airlock doors function to ensure secondary containment integrity and to support the SGTS capability to maintain a negative pressure in the reactor building and minimize ground level releases of radioactive materials.

The finding was more than minor because the failure to timely identify the condition adverse to quality for the airlock door led to inappropriate controls being used to override the interlock. If left uncorrected this condition could have led to a more significant event involving a failure of the airlock because of a door interlock failure. Also, this condition is associated with the Reactor Safety Barrier Integrity Cornerstone and affects the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases from accidents or events. This finding has a cross-cutting aspect of PI&R because AmerGen failed to identify the degraded secondary containment airlock door.
Inspection Report# : 2004003*(pdf)*

Emergency Preparedness

Significance: W Nov 29, 2004
Identified By: Licensee
Item Type: VIO Violation
Incorrect EAL Due to EOP Change
Failure to maintain EAL procedure per 50.47(b)(4) which has low to moderate safety significance (White) because the EAL contained an incorrect threshold value used for making a GE declaration. The finding is more than minor because it is associated with the EP cornerstone attribute of standard emergency classification and action level scheme and offsite EP. 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 finding is potentially greater than very low safety significance because an untimely General Emergency could delay actions directed by State and local response plans. This issue was finalized as a White finding on March 1, 2005.
Inspection Report# : 2004009*(pdf)*

Occupational Radiation Safety

Significance: G Dec 31, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Violation of 10 CFR 20.1501 for Erroneous Radiological Surveys Associated with Repairs to MSIV
A self-revealing event involving a significant underestimation of airborne radioactivity for in-valve grinding work resulted in a Green finding and NCV violation of 10 CFR 20.1501, in that AmerGen did not provide reasonable surveys to evaluate the magnitude of airborne radioactivity concentrations, and potential radiological hazards present, during work on main steam isolation valve.

This finding is more than minor in that it is associated with the program and processes for exposure control and monitoring attribute of the Radiation Safety Cornerstone attributes and did affect the objective of the Cornerstone. Specifically, analyses of airborne radioactivity sample concentrations for in-valve grinding work, significantly underestimated airborne radioactivity due to incorrect assessment of radionuclides, relative to applicable exposure limits, and incorrect analysis of alpha airborne radioactivity concentrations. The finding was determined to be of very low risk significance (Green) in that: 1) it did not involve an ALARA finding, 2) it did not involve an overexposure, 3) there was no substantial potential for an overexposure and, 4) the ability to assess dose was not compromised. AmerGen implemented additional radiological controls and modified sample analysis. No significant personnel dose was identified.
Inspection Report# : 2004005*(pdf)*

Significance: G Mar 31, 2004
Identified By: Self Disclosing

Item Type: FIN Finding
ALARA Planning and Controls
A self-revealing finding having very low safety significance associated with occupational radiation exposure reduction was identified. During the Fall 2002 refueling outage, conduct of reactor vessel reassembly activities resulted in 12.4 person-rem of collective radiation exposure versus an exposure estimate of 6.5 rem.
The finding was more than minor in that the screening criteria (work exposure greater than five person-rem and greater than 50% above estimated) specified in NRC Manual Chapter 0612, Appendix E, were exceeded. This finding was determined to be of very low safety significance (Green) because the additional dose did not exceed 25 person-rem and involved only one occurrence.
Inspection Report# : 2004002*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Access Control to Radiologically Significant Areas
On March 18, 2004, the inspector determined that secondary keys for locked High Radiation Areas were not maintained under the administrative control of operations and/or radiation protection supervision on duty to prevent unauthorized entry. The keys were accessible to unauthorized personnel. This is a violation of Technical Specification 6.13.2.

The finding was determined to be more than minor in that it is associated with one of the Radiation Safety Cornerstone attributes (procedures and exposure control) and did affect the objective of the Cornerstone. The finding was determined to be of very low safety significance in that: 1) it did not involve an ALARA finding, 2) it did not involve an overexposure, 3) there was no substantial potential of an overexposure and, 4) the ability to assess dose was not compromised.
Inspection Report# : 2004002*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Radiation Monitoring Instrumentation and Protective Equipment
On March 18, 2004, the inspector identified that AmerGen was not functionally testing self-contained breathing apparatus (SCBAs) in accordance with the manufacturer's recommendations. This is a violation of 10 CFR50.47(b)(10) associated with failure to maintain protective measures for emergency workers.

The finding is more than minor in that it was associated with a failure to meet a regulatory requirement and the failure to maintain onsite respiratory protective equipment in accordance with regulatory requirements.
Inspection Report# : 2004002*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A May 21, 2004
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team concluded the implementation of the corrective action program at Oyster Creek Generating Station was adequate. The team determined that AmerGen was generally effective at identifying discrepant conditions at an appropriate threshold and entering them into the corrective action program. Identified issues were typically prioritized appropriately and in a timely fashion and were properly evaluated commensurate with the potential safety significance. Overall, the evaluations reasonably identified the causes of the problem, the extent of the condition, and provided for corrective actions to address the causes. However, in some cases, the corrective action program was not effectively used to evaluate, resolve and prevent problems. There were also some examples where issue evaluations were not complete, and corrective

actions were not effective at resolving problems. Audits and self-assessments identified adverse conditions and negative trends, and were generally self-critical and consistent with the team's findings. On the basis of interviews conducted, the team determined that plant staff personnel were familiar with and utilized the corrective action program to identify problems.
Inspection Report# : 2004006*(pdf)*

Last modified : April 21, 2005

Oyster Creek
1Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Green NCV was identified for failure to correct a condition adverse to quality affecting IRMs causing a reactor scram
A self-revealing non-cited violation of 10 CFR 50 App. B Crit. XVI was identified for failure to adequately correct a condition adverse to quality affecting the Intermediate Range Monitor (IRM) System, resulting in a reactor scram while at 2% power. The reactor protection system processed IRM Hi-Hi/INOP on channels 13, 14, and 18 IRMs, caused by EMI induced spiking through IRM cabling nicks and loose connections, while operators were driving the Source Range Monitor (SRM) detectors into the core.

This finding was more than minor because it resulted in a plant scram while the reactor was critical and can reasonably be viewed as a precursor to a significant event. This finding has a cross-cutting aspect of PI&R in that engineering evaluation and corrective actions implementation was inadequate to prevent repeat occurrence.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct a Condition Adverse to Quality - RRCS Voltage Control Circuit
The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criterion XI for failure to adequately correct a condition adverse to quality affecting the recirculation pump voltage regulator card which resulted in the trip of the ‘D' recirculation pump during four loop full power operations. The licensee replaced the failed components on the voltage regulator cards of all five recirculation loops and have returned them to service.

This finding is greater than minor because it had an actual impact on the operating reactor recuirculation pumps. It increased the likelihood of a plant transient, therefore it had an effect on initiating events. The finding is of very low safety significance because the finding does not contribute to a primary or secondary system LOCA initiator, the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available, and the finding does not contribute to the likelihood of a fire or internal/external flood. This finding has a cross-cutting aspect of PI&R in that engineering evaluation of External Operating Experience was inadequate to prevent a similar condition at the site.
Inspection Report# : 2004003*(pdf)*

Mitigating Systems

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the #1 EDG being inoperable on February 15, 2005.
This finding more than minor, it affected the mitigating system cornerstone objective to ensure availability, reliability, and capability of systems (emergency AC power) that respond to initiating events to prevent undesirable consequences and the related attributes of equipment performance, human performance and procedure quality. The finding is of very low safety significance because the redundant train of AC power was available and the affected train safety function was lost for less than its Technical Specification allowed outage time. This finding also has a cross-cutting aspect of PI&R in that corrective actions for similar prior events were not effective at preventing a repeat condition.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the "A" CRD pump being inoperable on February 17, 2005.
This finding was 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 to prevent undesirable consequences (high pressure decay heat removal water makeup). The specific attributes of equipment performance, human performance, and procedure quality were adversely impacted for the CRD system which functions as a high pressure injection makeup source for decay heat removal for transient event sequences. The finding is of very low safety significance because the redundant CRD pump was available and the condition was identified and corrected within 30 days. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Significance Determination Process (SDP) Phase 1 screening and determined that this finding required a Phase 2 approximation based upon the loss of a safety function of a single train for greater than its Technical Specification allowed outage time (AOT). The inspectors conducted a Phase 2 and the issue screened to Green. The most significant event sequences involved a transient with loss of primary heat removal capability. This issue involved the cross-cutting aspect of PI&R, in that troubleshooting actions were not sufficient to identify the problem that caused the "A" CRD pump to fail to start on several occasions during testing on February 17.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the "B" IC system being inoperable due to pressure loading in October 2004.
This finding was 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 to prevent undesirable consequences (Decay Heat Removal). The specific attributes of design control and equipment performance were adversely impacted for the isolation condenser system which functions to remove post-shutdown decay heat. The finding is of very low safety significance because the redundant train was not similarly affected by the pressure locking condition and remained available, and the pressure locking condition was detected and corrected in sufficient time such that the affected train safety function was lost for less than its Technical Specification allowed outage time of seven days. This issue involved the cross-cutting aspect of PI&R, in that the evaluation of Generic Letter 95-07 was insufficient to recognize the susceptibility of the Isolation Condenser System condensate return isolation valves to pressure locking from an at power initiating condition due to thermal binding.
Inspection Report# : 2005002*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate Procedure Resulted in a Temporary Loss of Shutdown Cooling
A self-revealing non-cited violation of Technical Specification 6.8.1 was identified because procedures for restoration of the shutdown cooling system were not adequate. This resulted in the loss of shutdown cooling while removing trip logic bypass jumpers in order to restore the shutdown cooling system to power operation standby readiness requirements in the plant technical specifications. Upon realization of the loss of shutdown cooling system, plant operators returned the shutdown cooling system to operation.

This finding is more than minor because the procedural control deficiency actually led to a loss of the normal shutdown decay heat removal capability and affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadvertent Loss of Shutdown Cooling
A self-revealing event involving an inadvertent loss of shutdown cooling resulted in a Green finding and non-cited violation (NCV) for failure to establish and maintain appropriate procedural requirements for the operation of the shutdown cooling system, as prescribed by Technical Specification 6.8.1 and the Oyster Creek Operation Quality Assurance Plan. The finding was more than minor because the procedural control deficiency actually led to a trip of the shutdown cooling system isolation actuation logic and a resultant loss of the normal shutdown decay heat removal capability. Therefore, this deficiency affected the availability of the decay heat removal function during shutdown operational conditions.
Inspection Report# : 2004003*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Human Performance Event Failure to Follow Procedures Led to Failure of Cooling System for EDG #1 on May 17, 2004.
A self-revealing event involving an inadvertent loss of the #1 Emergency diesel generator (EDG) cooling fan resulted in identifying a preliminary White finding and apparent violation for failure to implement appropriate procedural requirements for the maintenance of the #1 EDG system during an overhaul conducted April 26 - 30, 2004, as prescribed by Technical Specification 6.8.1. The finding was more than minor because it affected the mitigation system cornerstone objective to ensure the availability, reliability, and capability of systems (emergency AC power) that respond to initiating events to prevent undesirable consequences and the related attributes of equipment

performance, human performance, and procedure quality. A Phase 1 SDP determined that the finding represented a degradation in both the mitigating systems and barrier integrity cornerstones, because both core spray and containment spray systems were affected. Since the #1 EDG was inoperable for a period of 17 days (April 30 - May 17), exceeding the Technical Specification Allowed Outage Time of 7 days, the finding required a Phase 2 approximation. The Phase 2 evaluation of this finding resulted in a preliminary greater than Green finding based on a Loss of Offsite Power and failure to recover power. A Phase 3 evaluation determined this finding to be Green. Also, this finding has a cross-cutting aspect of human performance in that technicians failed to follow written procedures when replacing the fan belts for the #1 emergency diesel generator during a two-year overhaul in April 2004.
Inspection Report# : 2004003*(pdf)*

Significance: G May 21, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Corrective Actions for Mode Switch Failure on August 14, 2003
The team identified an NCV of 10 CFR 50, Appendix B, Criterion XVI, which requires that prompt corrective actions be implemented for conditions adverse to quality. Specifically, AmerGen did not implement a planned corrective action to address a deficiency associated with operation of the reactor mode switch during a reactor trip on August 14, 2003.

The finding was determined to be more than minor because it negatively affected the mitigating systems cornerstone attribute of human performance. Failure to place the reactor mode switch into the shutdown position following a reactor scram would be expected to result in a loss of the normal heat sink and complicate the event response. The finding was of very low safety significance (Green), because it was not a design or qualification deficiency, and it did not result in an actual loss of safety function for risk-significant equipment with respect to internal or external events. Additionally, the team noted that the heat sink would be recoverable from an event of this type.
Inspection Report# : 2004006*(pdf)*

Barrier Integrity

Significance: G Dec 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Violation of TS 6.8.1 for Inadequate Written Startup Procedure Causing a Loss of Containment Integrity
A self-revealing event involving an inadvertent loss of the containment isolation function resulted in a Green finding and NCV for failure to establish and maintain appropriate procedural requirements for the operation of the containment vent isolation valves, as prescribed by TS 6.8.1 and the Oyster Creek Operational Quality Assurance Plan.

This finding is more than minor because it affects the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events and the related attributes of configuration control and procedure quality. The finding represented a degradation in the barrier integrity cornerstone, because both drywell vent containment isolation valves were open and the primary containment isolation logic was bypassed for each valve causing a loss of safety function for the containment barrier. Per Appendix H, Containment Integrity SDP for the containment barrier being degraded due to an actual open pathway. Table 6.2, Phase 2 Risk Significance for BWR Mark 1 Containment Types screened to Green because: although the finding resulted in the possible leakage rate from the drywell to the environment of >100% containment volume/day through the open vent system, the fault exposure time was very small (less than 2 hours). A cross-cutting aspect of human performance was identified in that: (1) the procedure development involved a human error in identifying the wrong switch listed in step 6.51.6, and (2) that the initial questioning of this action by an operator did not result in preventing the action and resultant loss of containment integrity.
Inspection Report# : 2004005*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Adequately Correct a Condition Adverse to Quality Affecting a Main Steam Isolation Valve.affecting a Main Steam Isolation Valve.
A self-revealing Green NCV was identified for failure to adequately correct a condition adverse to quality affecting MSIV, NS04A, which resulted in the failure of the MSIV to close during testing. Contrary to 10 CFR 50 Appendix B, AmerGen failed to timely implement the installation of the back-seat modification provided in the 1993 GE SIL 568 and take proper action to reduce the MSIV susceptibility to rib guide wear and subsequent failure to close. This was entered into the AmerGen corrective action program under CAP O2004-2499.

This finding is more than minor because if left uncorrected, it could have resulted in a more significant safety concern regarding barrier integroty. The finding has a cross-cutting aspect of PI&R in that engineering evaluation of external OE was inadequate to prevent a similar failure at the site.
Inspection Report# : 2004004*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Maintain the Core Thermal Power Below the Licensed Limit
A self-revealing non-cited violation of Operating License No. DPR-16, Section 2.C.(1) was identified because operators exceeded the licensed thermal power limit of 1930 MWt by approximately 0.4% for a period of approximately 19 hours. When identified, Oyster Creek operators reduced power until steady state core thermal power was below 1930 MWt.

The finding is more than minor because if left uncorected, reactor core thermal power could have exceeded the initial power level of 102% for certain analyzed plant events. The finding has a cross-cutting aspect of human performance in that operators failed to identify and respond to an alarming condition in the Plant Computer System (PCS) that affected the heat balance calculation.
Inspection Report# : 2004004*(pdf)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Operator Failure to Recognize Degraded Secondary Containment Airlock
The inspectors identified a Green finding and NCV for failure to identify a condition adverse to quality when a secondary containment airlock door was found open, resulting in a momentary violation of TS 3.5.B and Procedure 312.10, "Secondary Containment Control," Rev. 8. The airlock doors function to ensure secondary containment integrity and to support the SGTS capability to maintain a negative pressure in the reactor building and minimize ground level releases of radioactive materials.

The finding was more than minor because the failure to timely identify the condition adverse to quality for the airlock door led to inappropriate controls being used to override the interlock. If left uncorrected this condition could have led to a more significant event involving a failure of the airlock because of a door interlock failure. Also, this condition is associated with the Reactor Safety Barrier Integrity Cornerstone and affects the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases from accidents or events. This finding has a cross-cutting aspect of PI&R because AmerGen failed to identify the degraded secondary containment airlock door.
Inspection Report# : 2004003*(pdf)*

Emergency Preparedness

Significance: W Nov 29, 2004
Identified By: Licensee
Item Type: VIO Violation
Incorrect EAL Due to EOP Change
Failure to maintain EAL procedure per 50.47(b)(4) which has low to moderate safety significance (White) because the EAL contained an incorrect threshold value used for making a GE declaration. The finding is more than minor because it is associated with the EP cornerstone attribute of standard emergency classification and action level scheme and offsite EP. 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 finding is potentially greater than very low safety significance because an untimely General Emergency could delay actions directed by State and local response plans. This issue was finalized as a White finding on March 1, 2005.
Inspection Report# : 2004009*(pdf)*

Occupational Radiation Safety

Significance: G Dec 31, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Violation of 10 CFR 20.1501 for Erroneous Radiological Surveys Associated with Repairs to MSIV
A self-revealing event involving a significant underestimation of airborne radioactivity for in-valve grinding work resulted in a Green finding and NCV violation of 10 CFR 20.1501, in that AmerGen did not provide reasonable surveys to evaluate the magnitude of airborne radioactivity concentrations, and potential radiological hazards present, during work on main steam isolation valve.

This finding is more than minor in that it is associated with the program and processes for exposure control and monitoring attribute of the

Radiation Safety Cornerstone attributes and did affect the objective of the Cornerstone. Specifically, analyses of airborne radioactivity sample concentrations for in-valve grinding work, significantly underestimated airborne radioactivity due to incorrect assessment of radionuclides, relative to applicable exposure limits, and incorrect analysis of alpha airborne radioactivity concentrations. The finding was determined to be of very low risk significance (Green) in that: 1) it did not involve an ALARA finding, 2) it did not involve an overexposure, 3) there was no substantial potential for an overexposure and, 4) the ability to assess dose was not compromised. AmerGen implemented additional radiological controls and modified sample analysis. No significant personnel dose was identified.
Inspection Report# : 2004005*(pdf)*

Public Radiation Safety

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to implement ODCM requirements for radioactive gaseous and liquid effluent monitoring.
Failure to implement provisions of the radioactive effluent control program specified therein. AmerGen did not determine cumulative or projected dose contributions for the current calendar quarter and current calendar year (2004), at least once per 31 calendar days, as required and did not determine, and adjust, the alarm setpoints for the stack and augmented off-gas building radioactive gaseous effluent monitoring instrumentation, in accordance with specified methodology and parameters. Further, AmerGen did not, in April 2004, take remedial actions to resolve an out-of-specification radioactivity analysis result from its radio-chemistry cross-check analysis laboratory. Lastly, no specific program was identified to ensure use of the gaseous waste treatment system when the projected annual dose could exceed 2 percent of the guidelines of Appendix I to 10 CFR 50. The failure to implement Technical Specification effluent control requirements is a performance deficiency in that various requirements were not met by AmerGen which were reasonably within its ability to foresee and correct, and which should have been prevented. This finding is greater than minor because failure to implement Technical Specification radioactive effluents controls program requirements affected the cornerstone objective to ensure adequate protection of public health and safety in that multiple provisions identified in the Technical Specifications for effluent controls were not implemented. This finding was evaluated against criteria in NRC Manual Chapter 0609, Appendix D, and determined to be of very low safety significance (Green), in that: 1) it was not a radioactive material control issue, 2) it did involve the effluent release program, 3) there was no impaired ability to assess dose, and 4) public radiation doses did not exceed 10 CFR 50, Appendix I values. This finding also had a cross-cutting aspect of Problem Identification and Resolution in that the licensee failed to identify this problem during routine self-assessments and audits of the effluent program.
Inspection Report# : 2005002*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A May 21, 2004
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team concluded the implementation of the corrective action program at Oyster Creek Generating Station was adequate. The team determined that AmerGen was generally effective at identifying discrepant conditions at an appropriate threshold and entering them into the corrective action program. Identified issues were typically prioritized appropriately and in a timely fashion and were properly evaluated commensurate with the potential safety significance. Overall, the evaluations reasonably identified the causes of the problem, the extent of the condition, and provided for corrective actions to address the causes. However, in some cases, the corrective action program was not effectively used to evaluate, resolve and prevent problems. There were also some examples where issue evaluations were not complete, and corrective actions were not effective at resolving problems. Audits and self-assessments identified adverse conditions and negative trends, and were generally self-critical and consistent with the team's findings. On the basis of interviews conducted, the team determined that plant staff personnel were familiar with and utilized the corrective action program to identify problems.
Inspection Report# : 2004006*(pdf)*

Last modified : June 17, 2005

Oyster Creek
2Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Green NCV was identified for failure to correct a condition adverse to quality affecting IRMs causing a reactor scram
A self-revealing non-cited violation of 10 CFR 50 App. B Crit. XVI was identified for failure to adequately correct a condition adverse to quality affecting the Intermediate Range Monitor (IRM) System, resulting in a reactor scram while at 2% power. The reactor protection system processed IRM Hi-Hi/INOP on channels 13, 14, and 18 IRMs, caused by EMI induced spiking through IRM cabling nicks and loose connections, while operators were driving the Source Range Monitor (SRM) detectors into the core.

This finding was more than minor because it resulted in a plant scram while the reactor was critical and can reasonably be viewed as a precursor to a significant event. This finding has a cross-cutting aspect of PI&R in that engineering evaluation and corrective actions implementation was inadequate to prevent repeat occurrence.
Inspection Report# : 2004004*(pdf)*

Mitigating Systems

Significance: G 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 frequence of a large loss of coolant accident concurrent with a passive failure of piping. (Section 1R21.2)

Inspection Report# : 2005006*(pdf)*

Significance: G 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)*

Significance: G Mar 31, 2005

Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the #1 EDG being inoperable on February 15, 2005.
This finding more than minor, it affected the mitigating system cornerstone objective to ensure availability, reliability, and capability of systems (emergency AC power) that respond to initiating events to prevent undesirable consequences and the related attributes of equipment performance, human performance and procedure quality. The finding is of very low safety significance because the redundant train of AC power was available and the affected train safety function was lost for less than its Technical Specification allowed outage time. This finding also has a cross-cutting aspect of PI&R in that corrective actions for similar prior events were not effective at preventing a repeat condition.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the "A" CRD pump being inoperable on February 17, 2005.
This finding was 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 to prevent undesirable consequences (high pressure decay heat removal water makeup). The specific attributes of equipment performance, human performance, and procedure quality were adversely impacted for the CRD system which functions as a high pressure injection makeup source for decay heat removal for transient event sequences. The finding is of very low safety significance because the redundant CRD pump was available and the condition was identified and corrected within 30 days. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Significance Determination Process (SDP) Phase 1 screening and determined that this finding required a Phase 2 approximation based upon the loss of a safety function of a single train for greater than its Technical Specification allowed outage time (AOT). The inspectors conducted a Phase 2 and the issue screened to Green. The most significant event sequences involved a transient with loss of primary heat removal capability. This issue involved the cross-cutting aspect of PI&R, in that troubleshooting actions were not sufficient to identify the problem that caused the "A" CRD pump to fail to start on several occasions during testing on February 17.

This issue also involved the cross-cutting aspect of human performance in that maintenance and surveillance personnel did not identify that the drive motor did not charge the breaker closing springs, and plant procedures also failed to include appropriate steps to ensure that breaker closing springs charged at the end of surveillance and maintenance activities to confirm the standby readiness configuration of the system.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the "B" IC system being inoperable due to pressure loading in October 2004.
This finding was 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 to prevent undesirable consequences (Decay Heat Removal). The specific attributes of design control and equipment performance were adversely impacted for the isolation condenser system which functions to remove post-shutdown decay heat. The finding is of very low safety significance because the redundant train was not similarly affected by the pressure locking condition and remained available, and the pressure locking condition was detected and corrected in sufficient time such that the affected train safety function was lost for less than its Technical Specification allowed outage time of seven days. This issue involved the cross-cutting aspect of PI&R, in that the evaluation of Generic Letter 95-07 was insufficient to recognize the susceptibility of the Isolation Condenser System condensate return isolation valves to pressure locking from an at power initiating condition due to thermal binding.
Inspection Report# : 2005002*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate Procedure Resulted in a Temporary Loss of Shutdown Cooling
A self-revealing non-cited violation of Technical Specification 6.8.1 was identified because procedures for restoration of the shutdown cooling system were not adequate. This resulted in the loss of shutdown cooling while removing trip logic bypass jumpers in order to restore the shutdown cooling system to power operation standby readiness requirements in the plant technical specifications. Upon realization of the loss of shutdown cooling system, plant operators returned the shutdown cooling system to operation.

This finding is more than minor because the procedural control deficiency actually led to a loss of the normal shutdown decay heat removal capability and affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences.
Inspection Report# : 2004004*(pdf)*

Barrier Integrity

Significance: G 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)*

Significance: G Dec 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Violation of TS 6.8.1 for Inadequate Written Startup Procedure Causing a Loss of Containment Integrity
A self-revealing event involving an inadvertent loss of the containment isolation function resulted in a Green finding and NCV for failure to establish and maintain appropriate procedural requirements for the operation of the containment vent isolation valves, as prescribed by TS 6.8.1 and the Oyster Creek Operational Quality Assurance Plan.

This finding is more than minor because it affects the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events and the related attributes of configuration control and procedure quality. The finding represented a degradation in the barrier integrity cornerstone, because both drywell vent containment isolation valves were open and the primary containment isolation logic was bypassed for each valve causing a loss of safety function for the containment barrier. Per Appendix H, Containment Integrity SDP for the containment barrier being degraded due to an actual open pathway. Table 6.2, Phase 2 Risk Significance for BWR Mark 1 Containment Types screened to Green because: although the finding resulted in the possible leakage rate from the drywell to the environment of >100% containment volume/day through the open vent system, the fault exposure time was very small (less than 2 hours). A cross-cutting aspect of human performance was identified in that: (1) the procedure development involved a human error in identifying the wrong switch listed in step 6.51.6, and (2) that the initial questioning of this action by an operator did not result in preventing the action and resultant loss of containment integrity.
Inspection Report# : 2004005*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Adequately Correct a Condition Adverse to Quality Affecting a Main Steam Isolation Valve.affecting a Main Steam Isolation Valve.
A self-revealing Green NCV was identified for failure to adequately correct a condition adverse to quality affecting MSIV, NS04A, which resulted in the failure of the MSIV to close during testing. Contrary to 10 CFR 50 Appendix B, AmerGen failed to timely implement the installation of the back-seat modification provided in the 1993 GE SIL 568 and take proper action to reduce the MSIV susceptibility to rib guide wear and subsequent failure to close. This was entered into the AmerGen corrective action program under CAP O2004-2499.

This finding is more than minor because if left uncorrected, it could have resulted in a more significant safety concern regarding barrier integroty. The finding has a cross-cutting aspect of PI&R in that engineering evaluation of external OE was inadequate to prevent a similar failure at the site.
Inspection Report# : 2004004*(pdf)*

Significance: G Sep 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Maintain the Core Thermal Power Below the Licensed Limit
A self-revealing non-cited violation of Operating License No. DPR-16, Section 2.C.(1) was identified because operators exceeded the licensed thermal power limit of 1930 MWt by approximately 0.4% for a period of approximately 19 hours. When identified, Oyster Creek operators reduced power until steady state core thermal power was below 1930 MWt.

The finding is more than minor because if left uncorected, reactor core thermal power could have exceeded the initial power level of 102% for certain analyzed plant events. The finding has a cross-cutting aspect of human performance in that operators failed to identify and respond to an alarming condition in the Plant Computer System (PCS) that affected the heat balance calculation.
Inspection Report# : 2004004*(pdf)*

Emergency Preparedness

Significance: W Nov 29, 2004
Identified By: Licensee
Item Type: VIO Violation
Incorrect EAL Due to EOP Change
Failure to maintain EAL procedure per 50.47(b)(4) which has low to moderate safety significance (White) because the EAL contained an incorrect threshold value used for making a GE declaration. The finding is more than minor because it is associated with the EP cornerstone attribute of standard emergency classification and action level scheme and offsite EP. 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 finding is potentially greater than very low safety significance because an untimely General Emergency could delay actions directed by State and local response plans. This issue was finalized as a White finding on March 1, 2005.
Inspection Report# : 2004009*(pdf)*
Inspection Report# : 2005007*(pdf)*

Occupational Radiation Safety

Significance: G Dec 31, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Violation of 10 CFR 20.1501 for Erroneous Radiological Surveys Associated with Repairs to MSIV
A self-revealing event involving a significant underestimation of airborne radioactivity for in-valve grinding work resulted in a Green finding and NCV violation of 10 CFR 20.1501, in that AmerGen did not provide reasonable surveys to evaluate the magnitude of airborne radioactivity concentrations, and potential radiological hazards present, during work on main steam isolation valve.

This finding is more than minor in that it is associated with the program and processes for exposure control and monitoring attribute of the Radiation Safety Cornerstone attributes and did affect the objective of the Cornerstone. Specifically, analyses of airborne radioactivity sample concentrations for in-valve grinding work, significantly underestimated airborne radioactivity due to incorrect assessment of radionuclides, relative to applicable exposure limits, and incorrect analysis of alpha airborne radioactivity concentrations. The finding was determined to be of very low risk significance (Green) in that: 1) it did not involve an ALARA finding, 2) it did not involve an overexposure, 3) there was no substantial potential for an overexposure and, 4) the ability to assess dose was not compromised. AmerGen implemented additional radiological controls and modified sample analysis. No significant personnel dose was identified.
Inspection Report# : 2004005*(pdf)*

Public Radiation Safety

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to implement ODCM requirements for radioactive gaseous and liquid effluent monitoring.
Failure to implement provisions of the radioactive effluent control program specified therein. AmerGen did not determine cumulative or projected dose contributions for the current calendar quarter and current calendar year (2004), at least once per 31 calendar days, as required and did not determine, and adjust, the alarm setpoints for the stack and augmented off-gas building radioactive gaseous effluent monitoring instrumentation, in accordance with specified methodology and parameters. Further, AmerGen did not, in April 2004, take remedial actions to resolve an out-of-specification radioactivity analysis result from its radio-chemistry cross-check analysis laboratory. Lastly, no specific program was identified to ensure use of the gaseous waste treatment system when the projected annual dose could exceed 2 percent of the guidelines of Appendix I to 10 CFR 50. The failure to implement Technical Specification effluent control requirements is a performance deficiency in that various requirements were not met by AmerGen which were reasonably within its ability to foresee and correct, and which should have been prevented. This finding is greater than minor because failure to implement Technical Specification radioactive effluents controls program requirements affected the cornerstone objective to ensure adequate protection of public health and safety in that multiple provisions identified in the Technical Specifications for effluent controls were not implemented. This finding was evaluated against criteria in NRC Manual Chapter 0609, Appendix D, and determined to be of very low safety significance (Green), in that: 1) it was not a radioactive material control issue, 2) it did involve the effluent release program, 3) there was no impaired ability to assess dose, and 4) public radiation doses did not exceed 10 CFR 50, Appendix I values. This finding also had a cross-cutting aspect of Problem Identification and Resolution in that the licensee failed to identify this problem during routine self-assessments and audits of the effluent program.
Inspection Report# : 2005002*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : August 24, 2005

Oyster Creek
3Q/2005 Plant Inspection Findings

Initiating Events

Significance: G 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: G 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 frequence 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)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the #1 EDG being inoperable on February 15, 2005.
A self-revealing finding and non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, was identified for a February 15, 2005, event involving an inadvertent trip of the #1 Emergency Diesel Generator during troubleshooting repairs to the area lighting system.

This finding was more than minor because it affected the mitigating system cornerstone objective to ensure the availability, reliability, and capability of systems (emergency AC power) that respond to initiating events to prevent undesirable consequences and the related attributes of equipment performance, human performance and procedure quality. The finding is of very low safety significance because the redundant train of AC power was available and the affected train safety function was lost for less than its Technical Specification allowed outage time. This finding also has a cross-cutting aspect of PI&R in that corrective actions for similar prior events were not effective at preventing a repeat condition. (Section 1R13)
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the "A" CRD pump being inoperable on February 17, 2005.
A self-revealing finding and non-cited violation of Technical Specification 3.4.D was identified for failure to adequately restore the "A" control rod drive (CRD) pump to standby readiness after testing and maintenance on February 17, 2005.

This finding was 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 to prevent undesirable consequences (high pressure decay heat removal water makeup). The specific attributes of equipment performance, human performance, and procedure quality were adversely impacted for the CRD system, which functions as a high pressure injection makeup source for decay heat removal for transient event sequences. The finding is of very low safety significance because the redundant CRD pump was available and the condition was identified and corrected within 30 days. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Significance Determination Process (SDP) Phase 1 screening and determined that this finding required a Phase 2 approximation based upon the loss of a safety function of a single train for greater than its Technical Specification allowed outage time (AOT). The inspectors conducted a Phase 2 SDP evaluation and the issue screened to Green. The most dominant core damage sequences involved the transients without power conversion system (TPCS) and the failure of make-up to the isolation condensers and either failure of the low pressure injection system or failure to depressurize the reactor vessel. This finding was of very low risk significance because of the availability of the redundant CRD pump and the relatively short period of time the "A" CRD pump was inoperable.

This finding involved the cross-cutting aspect of PI&R, in that troubleshooting actions were not sufficient to identify the problem that caused the "A" CRD pump to fail to start on several occasions during testing on February 17, 2005. This issue also involved the cross-cutting aspect of human performance in that maintenance and surveillance personnel did not identify that the drive motor did not charge the breaker closing springs, and plant procedures also failed to include appropriate steps to ensure that breaker closing springs charged at the end of surveillance and maintenance activities to confirm the standby readiness configuration of the system. (Section 1R15)
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the "B" IC system being inoperable due to pressure loading in October 2004.
A self-revealing finding and non-cited violation was identified for failure to comply with 10 CFR 50, Appendix B, Criterion XVI, related to the evaluation of Generic Letter 95-07, "Pressure Locking and Thermal Binding of Safety Related Power Operated Gate Valves," in that the "B" train Isolation Condenser condensate return isolation valve was pressure locked and failed to open on October 8, October 12, and again on October 14, 2004, during testing.

This finding was 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 to prevent undesirable consequences (Decay Heat Removal). The specific attributes of design control and equipment performance were adversely impacted for the isolation condenser system which functions to remove post-shutdown decay heat. The finding is of very low safety significance because the redundant train was not similarly affected by the pressure locking condition and remained available, and the pressure locking condition was detected and corrected in sufficient time such that the affected train safety function was lost for less than its Technical Specification allowed outage time. This issue involved the cross-cutting aspect of PI&R, in that the evaluation of Generic Letter 95-07 was insufficient to recognize the susceptibility of the Isolation Condenser System condensate return isolation valves to pressure locking from an at power initiating condition due to thermal binding. (Section 4OA5)
Inspection Report# : 2005002*(pdf)*

Barrier Integrity

Significance: G Jul 12, 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)*

Significance: G 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)*

Significance: G Dec 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Violation of TS 6.8.1 for Inadequate Written Startup Procedure Causing a Loss of Containment Integrity
A self-revealing event involving an inadvertent loss of the containment isolation function resulted in a Green finding and NCV for failure to establish and maintain appropriate procedural requirements for the operation of the containment vent isolation valves, as prescribed by TS 6.8.1 and the Oyster Creek Operational Quality Assurance Plan.

This finding is more than minor because it affects the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events and the related attributes of configuration control and procedure quality. The finding represented a degradation in the barrier integrity cornerstone, because both drywell vent containment isolation valves were open and the primary containment isolation logic was bypassed for each valve causing a loss of safety function for the containment barrier. Per Appendix H, Containment Integrity SDP for the containment barrier being degraded due to an actual open pathway. Table 6.2, Phase 2 Risk Significance for BWR Mark 1 Containment Types screened to Green because: although the finding resulted in the possible leakage rate from the drywell to the environment of >100% containment volume/day through the open vent system, the fault exposure time was very small (less than 2 hours). A cross-cutting aspect of human performance was identified in that: (1) the procedure development involved a human error in identifying the wrong switch listed in step 6.51.6, and (2) that the initial questioning of this action by an operator did not result in preventing the action and resultant loss of containment integrity.
Inspection Report# : 2004005*(pdf)*

Emergency Preparedness

Significance: TBD Sep 23, 2005
Identified By: NRC
Item Type: AV Apparent Violation
EAL Matrix Not Reviewed For Declaring an Alert
An NRC-identified apparent violation (AV) of 10 CFR 50.47(b)(4) was identified. This AV, 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). (Section 3.1)
Inspection Report# : 2005011*(pdf)*

Significance: G 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)*

Significance: W Nov 29, 2004
Identified By: Licensee
Item Type: VIO Violation
Incorrect EAL Due to EOP Change
Failure to maintain EAL procedure per 50.47(b)(4) which has low to moderate safety significance (White) because the EAL contained an incorrect threshold value used for making a GE declaration. The finding is more than minor because it is associated with the EP cornerstone attribute of standard emergency classification and action level scheme and offsite EP. 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 finding is potentially greater than very low safety significance because an untimely General Emergency could delay actions directed by State and local response plans. This issue was finalized as a White finding on March 1, 2005.
Inspection Report# : 2004009*(pdf)*
Inspection Report# : 2005007*(pdf)*

Occupational Radiation Safety

Significance: G Dec 31, 2004
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Violation of 10 CFR 20.1501 for Erroneous Radiological Surveys Associated with Repairs to MSIV
A self-revealing event involving a significant underestimation of airborne radioactivity for in-valve grinding work resulted in a Green finding and NCV violation of 10 CFR 20.1501, in that AmerGen did not provide reasonable surveys to evaluate the magnitude of airborne radioactivity concentrations, and potential radiological hazards present, during work on main steam isolation valve.

This finding is more than minor in that it is associated with the program and processes for exposure control and monitoring attribute of the

Radiation Safety Cornerstone attributes and did affect the objective of the Cornerstone. Specifically, analyses of airborne radioactivity sample concentrations for in-valve grinding work, significantly underestimated airborne radioactivity due to incorrect assessment of radionuclides, relative to applicable exposure limits, and incorrect analysis of alpha airborne radioactivity concentrations. The finding was determined to be of very low risk significance (Green) in that: 1) it did not involve an ALARA finding, 2) it did not involve an overexposure, 3) there was no substantial potential for an overexposure and, 4) the ability to assess dose was not compromised. AmerGen implemented additional radiological controls and modified sample analysis. No significant personnel dose was identified.
Inspection Report# : 2004005*(pdf)*

Public Radiation Safety

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to implement ODCM requirements for radioactive gaseous and liquid effluent monitoring.
An NRC identified non-cited violation of Technical Specification 6.8.1.a. was identified associated with failure to implement provisions of the radioactive effluent control program specified therein. Specifically, AmerGen did not determine cumulative or projected dose contributions for the current calendar quarter and current calendar year (2004), at least once per 31 calendar days, as required and did not determine, and adjust, the alarm setpoints for the stack and augmented off-gas building radioactive gaseous effluent monitoring instrumentation in accordance with specified methodology and parameters. Further, in April 2004, AmerGen did not take remedial actions to resolve an out-of-specification radioactivity analysis result from its radio-chemistry cross-check analysis laboratory. Lastly, no specific program was identified to ensure use of the gaseous waste treatment system when the projected annual dose could exceed 2 percent of the guidelines of Appendix I to 10 CFR 50.

The failure to implement Technical Specification effluent control requirements is a performance deficiency in that various requirements were not met by AmerGen which were reasonably within its ability to foresee and correct, and which should have been prevented. This finding is greater than minor because failure to implement Technical Specification radioactive effluents controls program requirements affected the cornerstone objective to ensure adequate protection of public health and safety. This finding was evaluated against criteria in NRC Manual Chapter 0609, Appendix D, and determined to be of very low safety significance (Green), in that: 1) it was not a radioactive material control issue, 2) it did involve the effluent release program, 3) there was no impaired ability to assess dose, and 4) public radiation doses did not exceed 10 CFR 50, Appendix I values. This finding also had a cross-cutting aspect of Problem Identification and Resolution in that AmerGen failed to identify this problem during routine self-assessments and audits of the effluent program. (Section 2PS1)
Inspection Report# : 2005002*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: G 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 : November 30, 2005

Oyster Creek
4Q/2005 Plant Inspection Findings

Initiating Events

Significance: G 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: G 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 then 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)*

Significance: G 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)*

Significance: G 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 frequence 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)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the #1 EDG being inoperable on February 15, 2005.
A self-revealing finding and non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, was identified for a February 15, 2005, event involving an inadvertent trip of the #1 Emergency Diesel Generator during troubleshooting repairs to the area lighting system.

This finding was more than minor because it affected the mitigating system cornerstone objective to ensure the availability, reliability, and capability of systems (emergency AC power) that respond to initiating events to prevent undesirable consequences and the related attributes of equipment performance, human performance and procedure quality. The finding is of very low safety significance because the redundant train of AC power was available and the affected train safety function was lost for less than its Technical Specification allowed outage time. This finding also has a cross-cutting aspect of PI&R in that corrective actions for similar prior events were not effective at preventing a repeat condition. (Section 1R13)
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the "A" CRD pump being inoperable on February 17, 2005.
A self-revealing finding and non-cited violation of Technical Specification 3.4.D was identified for failure to adequately restore the "A" control rod drive (CRD) pump to standby readiness after testing and maintenance on February 17, 2005.

This finding was 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 to prevent undesirable consequences (high pressure decay heat removal water makeup).

The specific attributes of equipment performance, human performance, and procedure quality were adversely impacted for the CRD system, which functions as a high pressure injection makeup source for decay heat removal for transient event sequences. The finding is of very low safety significance because the redundant CRD pump was available and the condition was identified and corrected within 30 days. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Significance Determination Process (SDP) Phase 1 screening and determined that this finding required a Phase 2 approximation based upon the loss of a safety function of a single train for greater than its Technical Specification allowed outage time (AOT). The inspectors conducted a Phase 2 SDP evaluation and the issue screened to Green. The most dominant core damage sequences involved the transients without power conversion system (TPCS) and the failure of make-up to the isolation condensers and either failure of the low pressure injection system or failure to depressurize the reactor vessel. This finding was of very low risk significance because of the availability of the redundant CRD pump and the relatively short period of time the "A" CRD pump was inoperable.

This finding involved the cross-cutting aspect of PI&R, in that troubleshooting actions were not sufficient to identify the problem that caused the "A" CRD pump to fail to start on several occasions during testing on February 17, 2005. This issue also involved the cross-cutting aspect of human performance in that maintenance and surveillance personnel did not identify that the drive motor did not charge the breaker closing springs, and plant procedures also failed to include appropriate steps to ensure that breaker closing springs charged at the end of surveillance and maintenance activities to confirm the standby readiness configuration of the system. (Section 1R15)
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 31, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Ineffective corrective actions leading to the "B" IC system being inoperable due to pressure loading in October 2004.
A self-revealing finding and non-cited violation was identified for failure to comply with 10 CFR 50, Appendix B, Criterion XVI, related to the evaluation of Generic Letter 95-07, "Pressure Locking and Thermal Binding of Safety Related Power Operated Gate Valves," in that the "B" train Isolation Condenser condensate return isolation valve was pressure locked and failed to open on October 8, October 12, and again on October 14, 2004, during testing.

This finding was 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 to prevent undesirable consequences (Decay Heat Removal). The specific attributes of design control and equipment performance were adversely impacted for the isolation condenser system which functions to remove post-shutdown decay heat. The finding is of very low safety significance because the redundant train was not similarly affected by the pressure locking condition and remained available, and the pressure locking condition was detected and corrected in sufficient time such that the affected train safety function was lost for less than its Technical Specification allowed outage time. This issue involved the cross-cutting aspect of PI&R, in that the evaluation of Generic Letter 95-07 was insufficient to recognize the susceptibility of the Isolation Condenser System condensate return isolation valves to pressure locking from an at power initiating condition due to thermal binding. (Section 4OA5)
Inspection Report# : 2005002*(pdf)*

Barrier Integrity

Significance: G 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)*

Significance: G 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

Significance: G 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)*

Significance: W 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

Public Radiation Safety

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to implement ODCM requirements for radioactive gaseous and liquid effluent monitoring.
An NRC identified non-cited violation of Technical Specification 6.8.1.a. was identified associated with failure to implement provisions of the radioactive effluent control program specified therein. Specifically, AmerGen did not determine cumulative or projected dose contributions for the current calendar quarter and current calendar year (2004), at least once per 31 calendar days, as required and did not determine, and adjust, the alarm setpoints for the stack and augmented off-gas building radioactive gaseous effluent monitoring instrumentation in accordance with specified methodology and parameters. Further, in April 2004, AmerGen did not take remedial actions to resolve an out-of-specification radioactivity analysis result from its radio-chemistry cross-check analysis laboratory. Lastly, no specific program was identified to ensure use of the gaseous waste treatment system when the projected annual dose could exceed 2 percent of the guidelines of Appendix I to 10 CFR 50.

The failure to implement Technical Specification effluent control requirements is a performance deficiency in that various requirements were not met by AmerGen which were reasonably within its ability to foresee and correct, and which should have been prevented. This finding is greater than minor because failure to implement Technical Specification radioactive effluents controls program requirements affected the cornerstone objective to ensure adequate protection of public health and safety. This finding was evaluated against criteria in NRC Manual Chapter 0609, Appendix D, and determined to be of very low safety significance (Green), in that: 1) it was not a radioactive material control issue, 2) it did involve the effluent release program, 3) there was no impaired ability to assess dose, and 4) public radiation doses did not exceed 10 CFR 50, Appendix I values. This finding also had a cross-cutting aspect of Problem Identification and Resolution in that AmerGen failed to identify this problem during routine self-assessments and audits of the effluent program. (Section 2PS1)
Inspection Report# : 2005002*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: G 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 : March 03, 2006

Oyster Creek
1Q/2006 Plant Inspection Findings

Initiating Events

Significance: G 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: G 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: G 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)*

Significance: G 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 then 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)*

Significance: G 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)*

Significance: G 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 frequence 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

Significance: G 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)*

Significance: G 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

Significance: G 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)*

Significance: W 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

Significance: G 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

Significance: G 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: G 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

Oyster Creek
2Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in a Hydrogen Detonation in Augmented Offgas System
A self-revealing finding was identified regarding inadequate procedure adherence when operators did not properly implement an alarm response procedure which contributed to a hydrogen detonation and the isolation of the offgas and augmented offgas (AOG) and systems on February 13, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions involved providing training to operations personnel on this event and communicating expectations regarding procedure usage.

The finding was more then minor because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability during shutdown as well as power operations. The inspectors conducted a significance determination process (SDP) Phase 1 screening in accordance with Inspector Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The performance deficiency has a human performance cross-cutting aspect. (Section 4OA3)

Inspection Report# : 2006003*(pdf)*

Significance: G Apr 24, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify That a Main Steam Isolation Valve Did Not Close Within TS Surveillance Acceptance Criteria
The inspectors identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, “Corrective Action,” for the failure to identify that the “A” outboard main steam isolation valve (MSIV) did not stroke closed within the allowable time specified in the surveillance test procedure in February 2006. As a result of not recognizing that the valve did not meet stroke time acceptance criteria, the plant was started up with an inoperable MSIV. This was found by the inspectors during a review of data from a test performed in May 2006 during a forced outage. In May 2006, the same valve again failed to stroke closed in the allowable time; however, the station operators recognized the problem this time. The valve closing mechanism was adjusted before the plant was started up in May 2006. The failure to identify the failure in February 2006 was entered into the licensee’s CAP.

The finding is more than minor and is similar to an example described in NRC Inspection Manual Chapter (IMC) 0612, Appendix E, because when the closure time for the February 2006 test was calculated correctly, a Technical Specification (TS) limit was exceeded. The finding is associated with the equipment performance attribute of the Initiating Events cornerstone; in that, the fast closure of the MSIV challenged the reactor vessel integrity and increased the potential for a loss of coolant accident. The finding was determined to be of very low safety significance (Green) because the finding would neither result in exceeding the TS limit for identified reactor coolant system leakage nor would the finding have affected other mitigation systems resulting in a total loss of their safety function. The finding has a cross-cutting aspect in the area of human performance due to inattention to detail by the personnel performing the surveillance test procedure. (Section 4OA2.1.b)
Inspection Report# : 2006006*(pdf)*

Significance: G 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: G 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: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Scaffold Disassembly Results in Core Spray Booster Pump Unavailability
A self-revealing finding was identified regarding an inadequate disassembly of scaffold which resulted in the unavailability of the 'B' core spray booster pump on June 27, 2006. During disassembly of a scaffold, a scaffold coupler fell and damaged the 'B' core spray booster pump's trico oiler reservoir. This finding was determine to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions included communicating this event to maintenance personnel and enhancing the pre-job walkdown checklist to identify potential hazards.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability 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 one or more non-technical specification trains 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 has a human performance cross-cutting aspect. (Section 1R12)

Inspection Report# : 2006003*(pdf)*

Significance: G 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)*

Significance: G 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 then 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)*

Significance: G 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)*

Barrier Integrity

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Actions for the Standby Gas Treatment System
A self-revealing finding occurred when AmerGen did not take timely corrective actions for a non-conforming condition on the standby gas treatment (SBGT) system between March 2005 and May 2006. Specifically, sand and debris were identified in the SBGT system ‘1' due to a hole in the system ductwork. This finding was determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included a permanent modification which involved installing an aluminum sleeve inside the ductwork to correct the condition.

The finding was more then minor because it was associated with the barrier performance attribute of the barrier integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radio nuclide releases caused by accidents or events. 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) because the finding only represents a degradation of the radiological barrier function provided for the SBGT system. The performance deficiency has a problem identification and resolution cross-cutting aspect. (Section 1R12)

Inspection Report# : 2006003*(pdf)*

Significance: G 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)*

Emergency Preparedness

Significance: N/A Jun 12, 2006
Identified By: NRC
Item Type: FIN Finding
NRC Emergency Preparedness 95002 Supplemental Inspection
The NRC performed this supplemental inspection, in accordance with Inspection Procedure 95002, to assess the licensee's evaluation and corrective actions associated with two White findings. This inspection also included an independent extent of condition and extent of cause review of issues related to the White findings. The two findings, which were in the EP Cornerstone, placed the performance of Oyster Creek into the Degraded Cornerstone Column of the NRC's Action matrix for the third quarter 2005. The first White finding involved an inaccurate EAL threshold value used for making a GE declaration. That White finding was evaluated and closed in Supplemental Inspection Report 05000219/2005007.

The second White finding involved operators not recognizing during an actual event that plant parameters met the EAL thresholds for declaring a UE and a subsequent Alert. In consideration of the NRC work already completed in the above listed prior inspection, this supplemental inspection primarily focused on the second White finding, and the combined assessment of the two White findings that resulted in the Degraded EP Cornerstone.

August 2005 Event Analysis and Corrective Actions (Second White Finding)

AmerGen determined that the root cause of the event was that operations senior management failed to consistently reinforce strict compliance with human performance and EP fundamentals. AmerGen also identified several causal factors and contributing causes associated with EP and issued corrective actions to prevent recurrence. The completed corrective actions associated with the EP deficiencies appeared to be effective.

However, the human performance issues related to procedural compliance were determined to be a primary causal factor that led to the performance problems identified during the August 2005 event response. The inspectors determined, despite the corrective actions taken and the time available for the actions to become effective, that licensed operators continued to demonstrate weaknesses associated with understanding of management expectations and site requirements for procedural use and adherence. The inspectors based this conclusion on information obtained during interviews with multiple licensed operators and on review of NRC-identified procedural usage issues during recent operating events. (Section 02.03)

As a result, the White finding associated with the August 2005 event will remain open pending completion of an additional follow-up NRC inspection to review additional AmerGen corrective actions to improve the licensed operators' knowledge of and adherence to procedural usage requirements.
Summary of Combined Review

The inspectors performed a collective assessment of the July 2004 event and the August 2005 event to determine if a commonality existed between the two events. For the first event, a process was not used; whereas for the second event, the procedure was used, but not strictly followed. Though somewhat similar, AmerGen determined the causes for the events were different; therefore, no additional corrective actions were necessary. The team reviewed the two events, discussed the root causes with AmerGen personnel, and concluded that AmerGen's collective evaluation for the multiple performance issues was adequate.
Inspection Report# : 2006010*(pdf)*

Significance: G 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)*

Significance: W 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

Significance: G 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

Significance: G Apr 24, 2006
Identified By: NRC
Item Type: FIN Finding
Failure to Take Timely Corrective Actions to Ensure the Availability and Reliability of the Augmented Off-Gas System

The inspectors identified a Green Finding for the failure to take timely actions to correct known deficiencies associated with the augmented off-gas (AOG) system, which impacted the system's reliability and availability since October 2003. In 2003, Oyster Creek performed a Common Cause Analysis (CCA) due to multiple equipment issues and system trips of the AOG system. The CCA recommended four system enhancements and also that routine preventive maintenance was necessary to address some of the deficiencies which had contributed to system unavailability. The preventative maintenance tasks were developed; however, none of the recommended system enhancements were completed. From 2003 to September 2005, the "B" train of AOG system was unavailable due to the degraded condition of the recombiner bed. When "B" train was returned to service in October 2005, it operated intermittently until February 13, 2006, when a hydrogen detonation rendered the "B" train unavailable. Oyster Creek completed a second CCA which identified the same enhancements that had been recommended in 2003. A system improvement plan was prepared to address how the plant was going to resolve the issues in the upcoming years. This performance deficiency was entered into the licensee's CAP.

The finding is more than minor because it is associated with the plant equipment attribute of the Public Radiation Safety cornerstone and affected the objective to ensure adequate protection of public health and safety from exposure of radioactive materials released into the public domain as a result of routine civilian nuclear plant operation. The finding was determined to be of very low safety significance (Green) because there was no radiological release associated with the event. The finding has a cross-cutting aspect in the area of problem identification and resolution due to the failure to take timely corrective actions to minimize the unavailability and unreliability of the AOG system. (Section 4OA2.3.b)
Inspection Report# : 2006006*(pdf)*

Significance: G 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: N/A Apr 24, 2006
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team concluded that the implementation of the corrective action program (CAP) at Oyster Creek was generally adequate, and improving compared to documented inspection results since the last team inspection of the corrective action program in May 2004. The team determined that Oyster Creek had a low threshold for identifying problems and entering them in the CAP; however, the station did not always recognize that individual problems could be indicative of a larger performance issue. In addition, the station did not consistently use trend data to identify potential problems, as evidenced by two examples where opportunities to prevent failures existed but were not acted upon. Once entered into the system, items were screened and prioritized in a timely manner using established criteria. Items entered into the CAP were properly evaluated commensurate with their safety significance. However, documentation supporting conclusions in several causal evaluations and the operability determinations was weak. Corrective actions were typically implemented in a timely manner. Licensee audits and self-assessments were generally critical at identifying problems. On the basis of interviews conducted during the inspection, workers at the site expressed freedom to enter safety concerns into the CAP.

There was one Green NCV and one Green Finding identified by the inspectors during this inspection. The NCV was associated with the failure to identify that a main steam isolation valve (MSIV) closed too fast during a surveillance test; as a result the plant was started up with an MSIV exhibiting a closure time outside the specified acceptance criteria. The Finding was associated with a failure to take timely corrective actions for repetitive deficiencies in the augmented off-gas system, impacting the system's reliability and availability.
Inspection Report# : 2006006*(pdf)*

Significance: G 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 : August 25, 2006

Oyster Creek
3Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Work Planning Results in #1 Air Compressor Trip
A self-revealing finding was identified when AmerGen did not implement adequate work planning to ensure the availability and reliability of the #1 air compressor. This resulted in a trip of the air compressor on September 7, 2006. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions included repairing the air compressor by replacing several valves internal to the air compressor.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Phase I SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance based upon a Phase 2 evaluation. The performance deficiency had a human performance cross-cutting aspect. (Section 1R12)
Inspection Report# : 2006004*(pdf)*

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in a Hydrogen Detonation in Augmented Offgas System
A self-revealing finding was identified regarding inadequate procedure adherence when operators did not properly implement an alarm response procedure which contributed to a hydrogen detonation and the isolation of the offgas and augmented offgas (AOG) and systems on February 13, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions involved providing training to operations personnel on this event and communicating expectations regarding procedure usage.

The finding was more then minor because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability during shutdown as well as power operations. The inspectors conducted a significance determination process (SDP) Phase 1 screening in accordance with Inspector Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The performance deficiency has a human performance cross-cutting aspect. (Section 4OA3)

Inspection Report# : 2006003*(pdf)*

Significance: G Apr 24, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify That a Main Steam Isolation Valve Did Not Close Within TS Surveillance Acceptance Criteria
The inspectors identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, "Corrective Action," for the failure to identify that the "A" outboard main steam isolation valve (MSIV) did not stroke closed within the allowable time specified

in the surveillance test procedure in February 2006. As a result of not recognizing that the valve did not meet stroke time acceptance criteria, the plant was started up with an inoperable MSIV. This was found by the inspectors during a review of data from a test performed in May 2006 during a forced outage. In May 2006, the same valve again failed to stroke closed in the allowable time; however, the station operators recognized the problem this time. The valve closing mechanism was adjusted before the plant was started up in May 2006. The failure to identify the failure in February 2006 was entered into the licensee's CAP.

The finding is more than minor and is similar to an example described in NRC Inspection Manual Chapter (IMC) 0612, Appendix E, because when the closure time for the February 2006 test was calculated correctly, a Technical Specification (TS) limit was exceeded. The finding is associated with the equipment performance attribute of the Initiating Events cornerstone; in that, the fast closure of the MSIV challenged the reactor vessel integrity and increased the potential for a loss of coolant accident. The finding was determined to be of very low safety significance (Green) because the finding would neither result in exceeding the TS limit for identified reactor coolant system leakage nor would the finding have affected other mitigation systems resulting in a total loss of their safety function. The finding has a cross-cutting aspect in the area of human performance due to inattention to detail by the personnel performing the surveillance test procedure. (Section 4OA2.1.b)
Inspection Report# : 2006006*(pdf)*

Significance: G 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)*

Mitigating Systems

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection Plan Requirements Not Implemented
The inspectors identified that AmerGen did not implement fire protection plan requirements on August 17, 2006. Specifically, AmerGen did not identify that a low pressure condition existed on the 4160 Volt carbon dioxide (CO_2) suppression system which resulted in the system being inoperable, and a continuous fire watch was not established in accordance with fire protection procedures. This finding was determined to be a non-cited violation of License Condition 2.C(3), "Fire Protection." AmerGen's proposed corrective actions included changing the analog gauge to a digital gauge, implementing an alarm response procedure for the local alarm, and operator training on proper gauge reading.

The finding was more than minor because it was associated with the protection against external factors (fires) attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," 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 assigned a degradation rating of low since the fire protection program element would have only minimally impacted the reliability and performance of the system. The performance deficiency had a human performance cross-cutting aspect. (Section 1R05)

Inspection Report# : 2006004*(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Foreign Material Control Results in #1 Emergency Diesel Generator Unavailability
A self-revealing finding was identified regarding inadequate foreign material control during performance of a maintenance activity on the #1 emergency diesel generator (EDG) on July 10, 2006. During performance of vibration data collection, a vibration probe cable became entangled with the shaft of the EDG intake air bin blower, resulting in the unit being secured, and the EDG being unavailable for inspection and retrieval of foreign material. This finding was determined not to involve a violation of NRC requirements. AmerGen's corrective actions included taking the EDG out of service to remove all foreign material, and a subsequent post maintenance test to verify operability of the EDG.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability 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 a period of time 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 for external events. The performance deficiency had a human performance cross-cutting aspect. (Section 1R22)
Inspection Report# : 2006004*(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Actions for the 'A' ESW pump breaker
A self-revealing finding was identified when AmerGen did not take timely corrective actions for a degraded condition on the 'A' emergency service water (ESW) pump. Specifically, a corrective action identified in February 2006 was not completed in a timely manner and resulted in the pump not starting on July 14, 2006. This finding was determined to be a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included performing resistance checks on the contacts which could impact proper operation of the other ESW pump breakers.

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 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 a period of time 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 problem identification and resolution cross-cutting aspect. (Section 1R22)
Inspection Report# : 2006004*(pdf)*

Significance: G Jun 30, 2006
Identified By: Self-Revealing

Item Type: NCV NonCited Violation
Inadequate Scaffold Disassembly Results in Core Spray Booster Pump Unavailability
A self-revealing finding was identified regarding an inadequate disassembly of scaffold which resulted in the unavailability of the ‘B' core spray booster pump on June 27, 2006. During disassembly of a scaffold, a scaffold coupler fell and damaged the ‘B' core spray booster pump's trico oiler reservoir. This finding was determine to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions included communicating this event to maintenance personnel and enhancing the pre-job walkdown checklist to identify potential hazards.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability 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 one or more non-technical specification trains 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 has a human performance cross-cutting aspect. (Section 1R12)

Inspection Report# : 2006003*(pdf)*

Significance: G 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)*

Significance: G 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 then 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)*

Significance: G 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)*

Barrier Integrity

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Actions for the Standby Gas Treatment System
A self-revealing finding occurred when AmerGen did not take timely corrective actions for a non-conforming condition on the standby gas treatment (SBGT) system between March 2005 and May 2006. Specifically, sand and debris were identified in the SBGT system ‘1' due to a hole in the system ductwork. This finding was determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included a permanent modification which involved installing an aluminum sleeve inside the ductwork to correct the condition.

The finding was more then minor because it was associated with the barrier performance attribute of the barrier integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radio nuclide releases caused by accidents or events. 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) because the finding only represents a degradation of the radiological barrier function provided for the SBGT system. The performance deficiency has a problem identification and resolution cross-cutting aspect. (Section 1R12)

Inspection Report# : 2006003*(pdf)*

Emergency Preparedness

Significance: N/A Jun 12, 2006
Identified By: NRC
Item Type: FIN Finding
NRC Emergency Preparedness 95002 Supplemental Inspection
The NRC performed this supplemental inspection, in accordance with Inspection Procedure 95002, to assess the licensee's evaluation and corrective actions associated with two White findings. This inspection also included an independent extent of condition and extent of cause review of issues related to the White findings. The two findings, which were in the EP Cornerstone, placed the performance of Oyster Creek into the Degraded Cornerstone Column of the NRC's Action matrix for the third quarter 2005. The first White finding involved an inaccurate EAL threshold value used for making a GE declaration. That White finding was evaluated and closed in Supplemental Inspection Report 05000219/2005007.

The second White finding involved operators not recognizing during an actual event that plant parameters met the EAL thresholds for declaring a UE and a subsequent Alert. In consideration of the NRC work already completed in the above listed prior inspection, this supplemental inspection primarily focused on the second White finding, and the combined assessment of the two White findings that resulted in the Degraded EP Cornerstone.

August 2005 Event Analysis and Corrective Actions (Second White Finding)

AmerGen determined that the root cause of the event was that operations senior management failed to consistently reinforce strict compliance with human performance and EP fundamentals. AmerGen also identified several causal factors and contributing causes associated with EP and issued corrective actions to prevent recurrence. The completed corrective actions associated with the EP deficiencies appeared to be effective.

However, the human performance issues related to procedural compliance were determined to be a primary causal factor that led to the performance problems identified during the August 2005 event response. The inspectors determined, despite the corrective actions taken and the time available for the actions to become effective, that licensed operators continued to demonstrate weaknesses associated with understanding of management expectations and site requirements for procedural use and adherence. The inspectors based this conclusion on information obtained during interviews with multiple licensed operators and on review of NRC-identified procedural usage issues during recent operating events. (Section 02.03)

As a result, the White finding associated with the August 2005 event will remain open pending completion of an additional follow-up NRC inspection to review additional AmerGen corrective actions to improve the licensed operators' knowledge of and adherence to procedural usage requirements.
Summary of Combined Review

The inspectors performed a collective assessment of the July 2004 event and the August 2005 event to determine if a commonality existed between the two events. For the first event, a process was not used; whereas for the second event, the procedure was used, but not strictly followed. Though somewhat similar, AmerGen determined the causes for the events were different; therefore, no additional corrective actions were necessary. The team reviewed the two events, discussed the root causes with AmerGen personnel, and concluded that AmerGen's collective evaluation for the multiple performance issues was adequate.
Inspection Report# : 2006010*(pdf)*

Significance: W 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

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

Significance:  Apr 24, 2006
Identified By: NRC
Item Type: FIN Finding
Failure to Take Timely Corrective Actions to Ensure the Availability and Reliability of the Augmented Off-Gas System
The inspectors identified a Green Finding for the failure to take timely actions to correct known deficiencies associated with the augmented off-gas (AOG) system, which impacted the system’s reliability and availability since October 2003. In 2003, Oyster Creek performed a Common Cause Analysis (CCA) due to multiple equipment issues and system trips of the AOG system. The CCA recommended four system enhancements and also that routine preventive maintenance was necessary to address some of the deficiencies which had contributed to system unavailability. The preventative maintenance tasks were developed; however, none of the recommended system enhancements were completed. From 2003 to September 2005, the “B” train of AOG system was unavailable due to the degraded condition of the recombiner bed. When “B” train was returned to service in October 2005, it operated intermittently until February 13, 2006, when a hydrogen detonation rendered the “B” train unavailable. Oyster Creek completed a second CCA which identified the same enhancements that had been recommended in 2003. A system improvement plan was prepared to address how the plant was going to resolve the issues in the upcoming years. This performance deficiency was entered into the licensee’s CAP.

The finding is more than minor because it is associated with the plant equipment attribute of the Public Radiation Safety cornerstone and affected the objective to ensure adequate protection of public health and safety from exposure of radioactive materials released into the public domain as a result of routine civilian nuclear plant operation. The finding was determined to be of very low safety significance (Green) because there was no radiological release associated with the event. The finding has a cross-cutting aspect in the area of problem identification and resolution due to the failure to take timely corrective actions to minimize the unavailability and unreliability of the AOG system. (Section 4OA2.3.b)
Inspection Report# : 2006006*(pdf)*

Significance: G 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: N/A Apr 24, 2006
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team concluded that the implementation of the corrective action program (CAP) at Oyster Creek was generally adequate, and improving compared to documented inspection results since the last team inspection of the corrective action program in May 2004. The team determined that Oyster Creek had a low threshold for identifying problems and entering them in the CAP; however, the station did not always recognize that individual problems could be indicative of a larger performance issue. In addition, the station did not consistently use trend data to identify potential problems, as evidenced by two examples where opportunities to prevent failures existed but were not acted upon. Once entered into the system, items were screened and prioritized in a timely manner using established criteria. Items entered into the CAP were properly evaluated commensurate with their safety significance. However, documentation supporting conclusions in several causal evaluations and the operability determinations was weak. Corrective actions were typically implemented in a timely manner. Licensee audits and self-assessments were generally critical at identifying problems. On the basis of interviews

conducted during the inspection, workers at the site expressed freedom to enter safety concerns into the CAP.

There was one Green NCV and one Green Finding identified by the inspectors during this inspection. The NCV was associated with the failure to identify that a main steam isolation valve (MSIV) closed too fast during a surveillance test; as a result the plant was started up with an MSIV exhibiting a closure time outside the specified acceptance criteria. The Finding was associated with a failure to take timely corrective actions for repetitive deficiencies in the augmented off-gas system, impacting the system's reliability and availability.
Inspection Report# : 2006006*(pdf)*

Last modified : December 21, 2006

Oyster Creek
4Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Clearance Activity Performed Out of Sequence And Causes Trip of 'A' Shutdown Cooling Pump
A self-revealing finding was identified regarding inadequate procedure adherence when work activities on the 480 V '1A2' switchgear during 1R21 refueling outage resulted in a trip of a reactor building closed cooling water (RBCCW) and shutdown cooling (SDC) pump on October 22, 2006. Specifically, the steps in the clearance order were performed out of sequence. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions for this issue involved re-mediating the operators involved; and senior management lead training sessions with all operations personnel which reviewed management's expectations for use of error prevention tools such as procedural compliance, peer checking, and questioning attitude.

The finding was more than minor because it was associated with the configuration control attribute of the initiating events cornerstone and affected the objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown operations. This finding was evaluated using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process ," attachment 1, checklist 7 because it occurred during a refuel outage and reactor coolant system level in the reactor vessel was greater than 23 feet. The finding was of very low safety significance because the issue did not degrade the licensee's ability to recover decay heat removal once it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance because operators did not follow procedures. (Section 1R20)
Inspection Report# : 2006005 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Work Planning Results in #1 Air Compressor Trip
A self-revealing finding was identified when AmerGen did not implement adequate work planning to ensure the availability and reliability of the #1 air compressor. This resulted in a trip of the air compressor on September 7, 2006. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions included repairing the air compressor by replacing several valves internal to the air compressor.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Phase I SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance based upon a Phase 2 evaluation. The performance deficiency had a human performance cross-cutting aspect. (Section 1R12)
Inspection Report# : 2006004 *(pdf)*

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in a Hydrogen Detonation in Augmented Offgas System
A self-revealing finding was identified regarding inadequate procedure adherence when operators did not properly

implement an alarm response procedure which contributed to a hydrogen detonation and the isolation of the offgas and augmented offgas (AOG) and systems on February 13, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions involved providing training to operations personnel on this event and communicating expectations regarding procedure usage.

The finding was more then minor because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability during shutdown as well as power operations. The inspectors conducted a significance determination process (SDP) Phase 1 screening in accordance with Inspector Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The performance deficiency has a human performance cross-cutting aspect. (Section 4OA3)

Inspection Report# : 2006003 *(pdf)*

Significance: G Apr 24, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify That a Main Steam Isolation Valve Did Not Close Within TS Surveillance Acceptance Criteria
The inspectors identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, “Corrective Action,” for the failure to identify that the “A” outboard main steam isolation valve (MSIV) did not stroke closed within the allowable time specified in the surveillance test procedure in February 2006. As a result of not recognizing that the valve did not meet stroke time acceptance criteria, the plant was started up with an inoperable MSIV. This was found by the inspectors during a review of data from a test performed in May 2006 during a forced outage. In May 2006, the same valve again failed to stroke closed in the allowable time; however, the station operators recognized the problem this time. The valve closing mechanism was adjusted before the plant was started up in May 2006. The failure to identify the failure in February 2006 was entered into the licensee’s CAP.

The finding is more than minor and is similar to an example described in NRC Inspection Manual Chapter (IMC) 0612, Appendix E, because when the closure time for the February 2006 test was calculated correctly, a Technical Specification (TS) limit was exceeded. The finding is associated with the equipment performance attribute of the Initiating Events cornerstone; in that, the fast closure of the MSIV challenged the reactor vessel integrity and increased the potential for a loss of coolant accident. The finding was determined to be of very low safety significance (Green) because the finding would neither result in exceeding the TS limit for identified reactor coolant system leakage nor would the finding have affected other mitigation systems resulting in a total loss of their safety function. The finding has a cross-cutting aspect in the area of human performance due to inattention to detail by the personnel performing the surveillance test procedure. (Section 4OA2.1.b)
Inspection Report# : 2006006 *(pdf)*

Significance: G 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)*

Mitigating Systems

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate Operability Determination Associated With Elevated Isolation Condenser Shell Temperatures
The inspectors identified that AmerGen did not perform an adequate operability determination to assure the 'A' isolation condenser (IC) could meet its design bases requirements with elevated shell temperatures on October 6, 2006. This finding was determined not to involve a violation of regulatory requirements. AmerGen's corrective actions included repairing the valve, operator training on operability determinations, and revising procedures and calculations.

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 ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is also similar to more than minor example 3.I in NRC Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," in that calculations had to be re-performed to assure design requirements were met. 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 a period of time 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. This performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate a problem for operability. (Section 1R15)
Inspection Report# : 2006005 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Implementation Results in Loss of Power to the 'B' 125V DC Distribution Center
A self revealing finding was identified regarding inadequate procedure implementation when the 'B' 125 VDC battery main breaker was inadvertently operated and resulted in a loss of power to the 'B' DC distribution center on October 10, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1, "Procedures and Programs." AmerGen's corrective actions included disqualifying and re-mediating the operators involved, re-communicating management's expectations that self and peer checks and other error prevention tools should be utilized, and revising the operating procedure.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (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 one or more non-technical specification trains 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 cross-cutting aspect in the area of human performance because operations personnel did not properly utilize human error prevention techniques such as self and peer checking. (Section 4OA3)
Inspection Report# : 2006005 *(pdf)*

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection Plan Requirements Not Implemented
The inspectors identified that AmerGen did not implement fire protection plan requirements on August 17, 2006. Specifically, AmerGen did not identify that a low pressure condition existed on the 4160 Volt carbon dioxide (CO2) suppression system which resulted in the system being inoperable, and a continuous fire watch was not established in accordance with fire protection procedures. This finding was determined to be a non-cited violation of License Condition 2.C(3), "Fire Protection." AmerGen's proposed corrective actions included changing the analog gauge to a digital gauge, implementing an alarm response procedure for the local alarm, and operator training on proper gauge reading.

The finding was more than minor because it was associated with the protection against external factors (fires) attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," 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 assigned a degradation rating of low since the fire protection program element would have only minimally impacted the reliability and performance of the system. The performance deficiency had a human performance cross-cutting aspect. (Section 1R05)

Inspection Report# : 2006004 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Foreign Material Control Results in #1 Emergency Diesel Generator Unavailability
A self-revealing finding was identified regarding inadequate foreign material control during performance of a maintenance activity on the #1 emergency diesel generator (EDG) on July 10, 2006. During performance of vibration data collection, a vibration probe cable became entangled with the shaft of the EDG intake air bin blower, resulting in the unit being secured, and the EDG being unavailable for inspection and retrieval of foreign material. This finding was determined not to involve a violation of NRC requirements. AmerGen's corrective actions included taking the EDG out of service to remove all foreign material, and a subsequent post maintenance test to verify operability of the EDG.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability 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 a period of time 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 for external events. The performance deficiency had a human performance cross-cutting aspect. (Section 1R22)
Inspection Report# : 2006004 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Actions for the 'A' ESW pump breaker
A self-revealing finding was identified when AmerGen did not take timely corrective actions for a degraded condition on the 'A' emergency service water (ESW) pump. Specifically, a corrective action identified in February 2006 was not completed in a timely manner and resulted in the pump not starting on July 14, 2006. This finding was determined to be a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included performing resistance checks on the contacts which could impact proper operation of the other ESW pump breakers.

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 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 a period of time 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 problem identification and resolution cross-cutting aspect. (Section 1R22)
Inspection Report# : 2006004 *(pdf)*

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Scaffold Disassembly Results in Core Spray Booster Pump Unavailability
A self-revealing finding was identified regarding an inadequate disassembly of scaffold which resulted in the unavailability of the ‘B' core spray booster pump on June 27, 2006. During disassembly of a scaffold, a scaffold coupler fell and damaged the ‘B' core spray booster pump's trico oiler reservoir. This finding was determine to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions included communicating this event to maintenance personnel and enhancing the pre-job walkdown checklist to identify potential hazards.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability 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 one or more non-technical specification trains 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 has a human performance cross-cutting aspect. (Section 1R12)

Inspection Report# : 2006003 *(pdf)*

Significance: G 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)*

Barrier Integrity

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Actions for the Standby Gas Treatment System
A self-revealing finding occurred when AmerGen did not take timely corrective actions for a non-conforming condition on the standby gas treatment (SBGT) system between March 2005 and May 2006. Specifically, sand and debris were identified in the SBGT system '1' due to a hole in the system ductwork. This finding was determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included a permanent modification which involved installing an aluminum sleeve inside the ductwork to correct the condition.

The finding was more then minor because it was associated with the barrier performance attribute of the barrier integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radio nuclide releases caused by accidents or events. 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) because the finding only represents a degradation of the radiological barrier function provided for the SBGT system. The performance deficiency has a problem identification and resolution cross-cutting aspect. (Section 1R12)

Inspection Report# : 2006003 *(pdf)*

Emergency Preparedness

Significance: N/A Jun 12, 2006
Identified By: NRC
Item Type: FIN Finding
NRC Emergency Preparedness 95002 Supplemental Inspection
The NRC performed this supplemental inspection, in accordance with Inspection Procedure 95002, to assess the licensee's evaluation and corrective actions associated with two White findings. This inspection also included an independent extent of condition and extent of cause review of issues related to the White findings. The two findings, which were in the EP Cornerstone, placed the performance of Oyster Creek into the Degraded Cornerstone Column of the NRC's Action matrix for the third quarter 2005. The first White finding involved an inaccurate EAL threshold value used for making a GE declaration. That White finding was evaluated and closed in Supplemental Inspection Report 05000219/2005007.

The second White finding involved operators not recognizing during an actual event that plant parameters met the EAL thresholds for declaring a UE and a subsequent Alert. In consideration of the NRC work already completed in the above listed prior inspection, this supplemental inspection primarily focused on the second White finding, and the combined assessment of the two White findings that resulted in the Degraded EP Cornerstone.

August 2005 Event Analysis and Corrective Actions (Second White Finding)

AmerGen determined that the root cause of the event was that operations senior management failed to consistently reinforce strict compliance with human performance and EP fundamentals. AmerGen also identified several causal factors and contributing causes associated with EP and issued corrective actions to prevent recurrence. The completed corrective actions associated with the EP deficiencies appeared to be effective.

However, the human performance issues related to procedural compliance were determined to be a primary causal factor that led to the performance problems identified during the August 2005 event response. The inspectors determined, despite the corrective actions taken and the time available for the actions to become effective, that licensed operators continued to demonstrate weaknesses associated with understanding of management expectations and site requirements for procedural use and adherence. The inspectors based this conclusion on information obtained during interviews with multiple licensed operators and on review of NRC-identified procedural usage issues during recent operating events. (Section 02.03)

As a result, the White finding associated with the August 2005 event will remain open pending completion of an additional follow-up NRC inspection to review additional AmerGen corrective actions to improve the licensed operators' knowledge of and adherence to procedural usage requirements.
Summary of Combined Review

The inspectors performed a collective assessment of the July 2004 event and the August 2005 event to determine if a commonality existed between the two events. For the first event, a process was not used; whereas for the second event, the procedure was used, but not strictly followed. Though somewhat similar, AmerGen determined the causes for the events were different; therefore, no additional corrective actions were necessary. The team reviewed the two events, discussed the root causes with AmerGen personnel, and concluded that AmerGen's collective evaluation for the multiple performance issues was adequate.
Inspection Report# : 2006010 *(pdf)*

Significance: W 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

Significance: G 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

Significance: G Apr 24, 2006
Identified By: NRC
Item Type: FIN Finding
Failure to Take Timely Corrective Actions to Ensure the Availability and Reliability of the Augmented Off-Gas System
The inspectors identified a Green Finding for the failure to take timely actions to correct known deficiencies associated with the augmented off-gas (AOG) system, which impacted the system's reliability and availability since October 2003. In 2003, Oyster Creek performed a Common Cause Analysis (CCA) due to multiple equipment issues and system trips of the AOG system. The CCA recommended four system enhancements and also that routine preventive maintenance was necessary to address some of the deficiencies which had contributed to system unavailability. The preventative maintenance tasks were developed; however, none of the recommended system enhancements were completed. From 2003 to September 2005, the "B" train of AOG system was unavailable due to the degraded condition of the recombiner bed. When "B" train was returned to service in October 2005, it operated intermittently until February 13, 2006, when a hydrogen detonation rendered the "B" train unavailable. Oyster Creek completed a second CCA which identified the same enhancements that had been recommended in 2003. A system improvement plan was prepared to address how the plant was going to resolve the issues in the upcoming years. This performance deficiency was entered into the licensee's CAP.

The finding is more than minor because it is associated with the plant equipment attribute of the Public Radiation Safety cornerstone and affected the objective to ensure adequate protection of public health and safety from exposure of radioactive materials released into the public domain as a result of routine civilian nuclear plant operation. The finding was determined to be of very low safety significance (Green) because there was no radiological release associated with the event. The finding has a cross-cutting aspect in the area of problem identification and resolution due to the failure to take timely corrective actions to minimize the unavailability and unreliability of the AOG system. (Section 4OA2.3.b)
Inspection Report# : 2006006 *(pdf)*

Significance: G 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: N/A Apr 24, 2006
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team concluded that the implementation of the corrective action program (CAP) at Oyster Creek was generally adequate, and improving compared to documented inspection results since the last team inspection of the corrective action program in May 2004. The team determined that Oyster Creek had a low threshold for identifying problems and entering them in the CAP; however, the station did not always recognize that individual problems could be indicative of a larger performance issue. In addition, the station did not consistently use trend data to identify potential problems, as evidenced by two examples where opportunities to prevent failures existed but were not acted upon. Once entered into the system, items were screened and prioritized in a timely manner using established criteria. Items entered into the CAP were properly evaluated commensurate with their safety significance. However, documentation supporting conclusions in several causal evaluations and the operability determinations was weak. Corrective actions were typically implemented in a timely manner. Licensee audits and self-assessments were generally critical at identifying problems. On the basis of interviews conducted during the inspection, workers at the site expressed freedom to enter safety concerns into the CAP.

There was one Green NCV and one Green Finding identified by the inspectors during this inspection. The NCV was associated with the failure to identify that a main steam isolation valve (MSIV) closed too fast during a surveillance test; as a result the plant was started up with an MSIV exhibiting a closure time outside the specified acceptance criteria. The Finding was associated with a failure to take timely corrective actions for repetitive deficiencies in the augmented off-gas system, impacting the system’s reliability and availability.
Inspection Report# : 2006006 *(pdf)*

Last modified : March 01, 2007

Oyster Creek
1Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
'D' EMRV Adverse Trend Not Properly Identified
A self-revealing finding was identified when AmerGen did not properly identify an adverse trend on the 'D' electromatic relief valve (EMRV) pressure switch between May 2006 and December 2006, which resulted in an opening of the 'D' EMRV below its actuation setpoint at full power. This finding was determined to be an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions for this issue involved replacing the pressure switch, developing an improved trending method for the EMRV pressure switches, and evaluating the need to utilize a different style pressure switch or changing the surveillance procedure.

The finding was more then minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors conducted a Phase 1 SDP screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined the finding was of very low safety significance (Green). The finding was of very low safety significance because no initiating event or transient actually occurred and the finding did not contribute to the likelihood that mitigating equipment or functions would be unavailable. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify an adverse trend and assess information from the corrective action program and surveillance tests to identify a problem with the 'D' EMRV pressure switch [P.1.(b)]. (Section 4OA3)
Inspection Report# : 2007002 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Clearance Activity Performed Out of Sequence And Causes Trip of 'A' Shutdown Cooling Pump
A self-revealing finding was identified regarding inadequate procedure adherence when work activities on the 480 V '1A2' switchgear during 1R21 refueling outage resulted in a trip of a reactor building closed cooling water (RBCCW) and shutdown cooling (SDC) pump on October 22, 2006. Specifically, the steps in the clearance order were performed out of sequence. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions for this issue involved re-mediating the operators involved; and senior management lead training sessions with all operations personnel which reviewed management's expectations for use of error prevention tools such as procedural compliance, peer checking, and questioning attitude.

The finding was more than minor because it was associated with the configuration control attribute of the initiating events cornerstone and affected the objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown operations. This finding was evaluated using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process ," attachment 1, checklist 7 because it occurred during a refuel outage and reactor coolant system level in the reactor vessel was greater than 23 feet. The finding was of very low safety significance because the issue did not degrade the licensee's ability to recover decay heat removal once it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance because operators did not follow procedures. (Section 1R20)
Inspection Report# : 2006005 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: FIN Finding

Inadequate Work Planning Results in #1 Air Compressor Trip
A self-revealing finding was identified when AmerGen did not implement adequate work planning to ensure the availability and reliability of the #1 air compressor. This resulted in a trip of the air compressor on September 7, 2006. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions included repairing the air compressor by replacing several valves internal to the air compressor.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Phase I SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance based upon a Phase 2 evaluation. The performance deficiency had a human performance cross-cutting aspect. (Section 1R12)
Inspection Report# : 2006004 *(pdf)*

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in a Hydrogen Detonation in Augmented Offgas System
A self-revealing finding was identified regarding inadequate procedure adherence when operators did not properly implement an alarm response procedure which contributed to a hydrogen detonation and the isolation of the offgas and augmented offgas (AOG) and systems on February 13, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions involved providing training to operations personnel on this event and communicating expectations regarding procedure usage.

The finding was more then minor because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability during shutdown as well as power operations. The inspectors conducted a significance determination process (SDP) Phase 1 screening in accordance with Inspector Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The performance deficiency has a human performance cross-cutting aspect. (Section 4OA3)

Inspection Report# : 2006003 *(pdf)*

Significance: G Apr 24, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify That a Main Steam Isolation Valve Did Not Close Within TS Surveillance Acceptance Criteria
The inspectors identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, "Corrective Action," for the failure to identify that the "A" outboard main steam isolation valve (MSIV) did not stroke closed within the allowable time specified in the surveillance test procedure in February 2006. As a result of not recognizing that the valve did not meet stroke time acceptance criteria, the plant was started up with an inoperable MSIV. This was found by the inspectors during a review of data from a test performed in May 2006 during a forced outage. In May 2006, the same valve again failed to stroke closed in the allowable time; however, the station operators recognized the problem this time. The valve closing mechanism was adjusted before the plant was started up in May 2006. The failure to identify the failure in February 2006 was entered into the licensee's CAP.

The finding is more than minor and is similar to an example described in NRC Inspection Manual Chapter (IMC) 0612, Appendix E, because when the closure time for the February 2006 test was calculated correctly, a Technical Specification (TS) limit was exceeded. The finding is associated with the equipment performance attribute of the Initiating Events cornerstone; in that, the fast closure of the MSIV challenged the reactor vessel integrity and increased the potential for a loss of coolant accident. The finding was determined to be of very low safety significance (Green) because the finding would neither result in exceeding the TS limit for identified reactor coolant system leakage nor would the finding have affected other mitigation systems resulting in a total loss of their safety function. The finding has a cross-cutting aspect in

the area of human performance due to inattention to detail by the personnel performing the surveillance test procedure. (Section 4OA2.1.b)
Inspection Report# : 2006006 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Identification of an Inoperable Fire Barrier Door
The inspectors identified that AmerGen did not properly implement fire protection plan requirements on January 11 and January 16, 2007. Specifically, AmerGen did not identify that a fire barrier door for the safety-related 'B' 480 volt room was obstructed, preventing the door from closing if a fire was detected in the area. This finding was determined to be an NCV of license condition 2.C(3), "Fire Protection." AmerGen's corrective actions involved issuing a site wide communication reinforcing the requirements of not blocking open fire doors.

The finding was more than minor because it was associated with the protection against external factors (fires) attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," 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 although the issue was assigned a degradation rating of moderate, there were no appreciable combustibles or ignition sources in the stairway adjacent to the inoperable fire door. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify completely and accurately, and in a timely manner that the fire barrier door was obstructed from closing (inoperable); and therefore did not meet the requirements of the Oyster Creek fire protection plan [P.1.(a)]. (Section 1R05)
Inspection Report# : 2007002 *(pdf)*

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate Operability Determination Associated With Elevated Isolation Condenser Shell Temperatures
The inspectors identified that AmerGen did not perform an adequate operability determination to assure the 'A' isolation condenser (IC) could meet its design bases requirements with elevated shell temperatures on October 6, 2006. This finding was determined not to involve a violation of regulatory requirements. AmerGen's corrective actions included repairing the valve, operator training on operability determinations, and revising procedures and calculations.

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 ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is also similar to more than minor example 3.I in NRC Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," in that calculations had to be re-performed to assure design requirements were met. 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 a period of time 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. This performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate a problem for operability. (Section 1R15)
Inspection Report# : 2006005 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Implementation Results in Loss of Power to the 'B' 125V DC Distribution Center
A self revealing finding was identified regarding inadequate procedure implementation when the 'B' 125 VDC battery main breaker was inadvertently operated and resulted in a loss of power to the 'B' DC distribution center on October 10, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1, "Procedures and Programs." AmerGen's corrective actions included disqualifying and re-mediating the operators involved, re-communicating management's expectations that self and peer checks and other error prevention tools should be utilized, and revising the operating procedure.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (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 one or more non-technical specification trains 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 cross-cutting aspect in the area of human performance because operations personnel did not properly utilize human error prevention techniques such as self and peer checking. (Section 4OA3)
Inspection Report# : 2006005 *(pdf)*

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection Plan Requirements Not Implemented
The inspectors identified that AmerGen did not implement fire protection plan requirements on August 17, 2006. Specifically, AmerGen did not identify that a low pressure condition existed on the 4160 Volt carbon dioxide (CO_2) suppression system which resulted in the system being inoperable, and a continuous fire watch was not established in accordance with fire protection procedures. This finding was determined to be a non-cited violation of License Condition 2.C(3), "Fire Protection." AmerGen's proposed corrective actions included changing the analog gauge to a digital gauge, implementing an alarm response procedure for the local alarm, and operator training on proper gauge reading.

The finding was more than minor because it was associated with the protection against external factors (fires) attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," 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 assigned a degradation rating of low since the fire protection program element would have only minimally impacted the reliability and performance of the system. The performance deficiency had a human performance cross-cutting aspect. (Section 1R05)

Inspection Report# : 2006004 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Foreign Material Control Results in #1 Emergency Diesel Generator Unavailability
A self-revealing finding was identified regarding inadequate foreign material control during performance of a maintenance activity on the #1 emergency diesel generator (EDG) on July 10, 2006. During performance of vibration data collection, a vibration probe cable became entangled with the shaft of the EDG intake air bin blower, resulting in the unit being secured, and the EDG being unavailable for inspection and retrieval of foreign material. This finding was determined not to involve

a violation of NRC requirements. AmerGen's corrective actions included taking the EDG out of service to remove all foreign material, and a subsequent post maintenance test to verify operability of the EDG.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability 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 a period of time 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 for external events. The performance deficiency had a human performance cross-cutting aspect. (Section 1R22)
Inspection Report# : 2006004 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Actions for the 'A' ESW pump breaker
A self-revealing finding was identified when AmerGen did not take timely corrective actions for a degraded condition on the 'A' emergency service water (ESW) pump. Specifically, a corrective action identified in February 2006 was not completed in a timely manner and resulted in the pump not starting on July 14, 2006. This finding was determined to be a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included performing resistance checks on the contacts which could impact proper operation of the other ESW pump breakers.

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 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 a period of time 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 problem identification and resolution cross-cutting aspect. (Section 1R22)
Inspection Report# : 2006004 *(pdf)*

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Scaffold Disassembly Results in Core Spray Booster Pump Unavailability
A self-revealing finding was identified regarding an inadequate disassembly of scaffold which resulted in the unavailability of the 'B' core spray booster pump on June 27, 2006. During disassembly of a scaffold, a scaffold coupler fell and damaged the 'B' core spray booster pump's trico oiler reservoir. This finding was determine to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions included communicating this event to maintenance personnel and enhancing the pre-job walkdown checklist to identify potential hazards.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability 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 one or more non-technical specification trains 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 has a human performance cross-cutting aspect. (Section 1R12)

Inspection Report# : 2006003 *(pdf)*

Barrier Integrity

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Actions for the Standby Gas Treatment System
A self-revealing finding occurred when AmerGen did not take timely corrective actions for a non-conforming condition on the standby gas treatment (SBGT) system between March 2005 and May 2006. Specifically, sand and debris were identified in the SBGT system '1' due to a hole in the system ductwork. This finding was determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included a permanent modification which involved installing an aluminum sleeve inside the ductwork to correct the condition.

The finding was more then minor because it was associated with the barrier performance attribute of the barrier integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radio nuclide releases caused by accidents or events. 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) because the finding only represents a degradation of the radiological barrier function provided for the SBGT system. The performance deficiency has a problem identification and resolution cross-cutting aspect. (Section 1R12)

Inspection Report# : 2006003 *(pdf)*

Emergency Preparedness

Significance: N/A Jun 12, 2006
Identified By: NRC
Item Type: FIN Finding
NRC Emergency Preparedness 95002 Supplemental Inspection
The NRC performed this supplemental inspection, in accordance with Inspection Procedure 95002, to assess the licensee's evaluation and corrective actions associated with two White findings. This inspection also included an independent extent of condition and extent of cause review of issues related to the White findings. The two findings, which were in the EP Cornerstone, placed the performance of Oyster Creek into the Degraded Cornerstone Column of the NRC's Action matrix for the third quarter 2005. The first White finding involved an inaccurate EAL threshold value used for making a GE declaration. That White finding was evaluated and closed in Supplemental Inspection Report 05000219/2005007.

The second White finding involved operators not recognizing during an actual event that plant parameters met the EAL thresholds for declaring a UE and a subsequent Alert. In consideration of the NRC work already completed in the above listed prior inspection, this supplemental inspection primarily focused on the second White finding, and the combined assessment of the two White findings that resulted in the Degraded EP Cornerstone.

August 2005 Event Analysis and Corrective Actions (Second White Finding)

AmerGen determined that the root cause of the event was that operations senior management failed to consistently reinforce strict compliance with human performance and EP fundamentals. AmerGen also identified several causal factors and contributing causes associated with EP and issued corrective actions to prevent recurrence. The completed corrective actions associated with the EP deficiencies appeared to be effective.

However, the human performance issues related to procedural compliance were determined to be a primary causal factor that led to the performance problems identified during the August 2005 event response. The inspectors determined, despite the corrective actions taken and the time available for the actions to become effective, that licensed operators continued to demonstrate weaknesses associated with understanding of management expectations and site requirements for procedural use and adherence. The inspectors based this conclusion on information obtained during interviews with multiple licensed operators and on review of NRC-identified procedural usage issues during recent operating events. (Section 02.03)

As a result, the White finding associated with the August 2005 event will remain open pending completion of an additional follow-up NRC inspection to review additional AmerGen corrective actions to improve the licensed operators' knowledge of and adherence to procedural usage requirements.
Summary of Combined Review

The inspectors performed a collective assessment of the July 2004 event and the August 2005 event to determine if a commonality existed between the two events. For the first event, a process was not used; whereas for the second event, the procedure was used, but not strictly followed. Though somewhat similar, AmerGen determined the causes for the events were different; therefore, no additional corrective actions were necessary. The team reviewed the two events, discussed the root causes with AmerGen personnel, and concluded that AmerGen's collective evaluation for the multiple performance issues was adequate.
Inspection Report# : 2006010 *(pdf)*

Significance: W 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

Public Radiation Safety

Significance: G Apr 24, 2006
Identified By: NRC
Item Type: FIN Finding
Failure to Take Timely Corrective Actions to Ensure the Availability and Reliability of the Augmented Off-Gas

System
The inspectors identified a Green Finding for the failure to take timely actions to correct known deficiencies associated with the augmented off-gas (AOG) system, which impacted the system's reliability and availability since October 2003. In 2003, Oyster Creek performed a Common Cause Analysis (CCA) due to multiple equipment issues and system trips of the AOG system. The CCA recommended four system enhancements and also that routine preventive maintenance was necessary to address some of the deficiencies which had contributed to system unavailability. The preventative maintenance tasks were developed; however, none of the recommended system enhancements were completed. From 2003 to September 2005, the "B" train of AOG system was unavailable due to the degraded condition of the recombiner bed. When "B" train was returned to service in October 2005, it operated intermittently until February 13, 2006, when a hydrogen detonation rendered the "B" train unavailable. Oyster Creek completed a second CCA which identified the same enhancements that had been recommended in 2003. A system improvement plan was prepared to address how the plant was going to resolve the issues in the upcoming years. This performance deficiency was entered into the licensee's CAP.

The finding is more than minor because it is associated with the plant equipment attribute of the Public Radiation Safety cornerstone and affected the objective to ensure adequate protection of public health and safety from exposure of radioactive materials released into the public domain as a result of routine civilian nuclear plant operation. The finding was determined to be of very low safety significance (Green) because there was no radiological release associated with the event. The finding has a cross-cutting aspect in the area of problem identification and resolution due to the failure to take timely corrective actions to minimize the unavailability and unreliability of the AOG system. (Section 4OA2.3.b)
Inspection Report# : 2006006 *(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A Apr 24, 2006
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team concluded that the implementation of the corrective action program (CAP) at Oyster Creek was generally adequate, and improving compared to documented inspection results since the last team inspection of the corrective action program in May 2004. The team determined that Oyster Creek had a low threshold for identifying problems and entering them in the CAP; however, the station did not always recognize that individual problems could be indicative of a larger performance issue. In addition, the station did not consistently use trend data to identify potential problems, as evidenced by two examples where opportunities to prevent failures existed but were not acted upon. Once entered into the system, items were screened and prioritized in a timely manner using established criteria. Items entered into the CAP were properly evaluated commensurate with their safety significance. However, documentation supporting conclusions in several causal evaluations and the operability determinations was weak. Corrective actions were typically implemented in a timely manner. Licensee audits and self-assessments were generally critical at identifying problems. On the basis of interviews conducted during the inspection, workers at the site expressed freedom to enter safety concerns into the CAP.

There was one Green NCV and one Green Finding identified by the inspectors during this inspection. The NCV was associated with the failure to identify that a main steam isolation valve (MSIV) closed too fast during a surveillance test; as a result the plant was started up with an MSIV exhibiting a closure time outside the specified acceptance criteria. The Finding was associated with a failure to take timely corrective actions for repetitive deficiencies in the augmented off-gas system, impacting the system's reliability and availability.
Inspection Report# : 2006006 *(pdf)*

Last modified : June 01, 2007

Oyster Creek
2Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
'D' EMRV Adverse Trend Not Properly Identified
A self-revealing finding was identified when AmerGen did not properly identify an adverse trend on the 'D' electromatic relief valve (EMRV) pressure switch between May 2006 and December 2006, which resulted in an opening of the 'D' EMRV below its actuation setpoint at full power. This finding was determined to be an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions for this issue involved replacing the pressure switch, developing an improved trending method for the EMRV pressure switches, and evaluating the need to utilize a different style pressure switch or changing the surveillance procedure.

The finding was more then minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors conducted a Phase 1 SDP screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined the finding was of very low safety significance (Green). The finding was of very low safety significance because no initiating event or transient actually occurred and the finding did not contribute to the likelihood that mitigating equipment or functions would be unavailable. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify an adverse trend and assess information from the corrective action program and surveillance tests to identify a problem with the 'D' EMRV pressure switch [P.1.(b)]. (Section 4OA3)
Inspection Report# : 2007002 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Clearance Activity Performed Out of Sequence And Causes Trip of 'A' Shutdown Cooling Pump
A self-revealing finding was identified regarding inadequate procedure adherence when work activities on the 480 V '1A2' switchgear during 1R21 refueling outage resulted in a trip of a reactor building closed cooling water (RBCCW) and shutdown cooling (SDC) pump on October 22, 2006. Specifically, the steps in the clearance order were performed out of sequence. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions for this issue involved re-mediating the operators involved; and senior management lead training sessions with all operations personnel which reviewed management's expectations for use of error prevention tools such as procedural compliance, peer checking, and questioning attitude.

The finding was more than minor because it was associated with the configuration control attribute of the initiating events cornerstone and affected the objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown operations. This finding was evaluated using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process ," attachment 1, checklist 7 because it occurred during a refuel outage and reactor coolant system level in the reactor vessel was greater than 23 feet. The finding was of very low safety significance because the issue did not degrade the licensee's ability to recover decay heat removal once it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance because operators did not follow procedures. (Section 1R20)
Inspection Report# : 2006005 *(pdf)*

Significance: G Sep 30, 2006

Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Work Planning Results in #1 Air Compressor Trip
A self-revealing finding was identified when AmerGen did not implement adequate work planning to ensure the availability and reliability of the #1 air compressor. This resulted in a trip of the air compressor on September 7, 2006. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions included repairing the air compressor by replacing several valves internal to the air compressor.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Phase I SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance based upon a Phase 2 evaluation. The performance deficiency had a human performance cross-cutting aspect. (Section 1R12)
Inspection Report# : 2006004 *(pdf)*

Mitigating Systems

Significance: G May 25, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Acceptance Criteria In Emergency Diesel Generator Battery Service Test Procedures
The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," in that, AmerGen did not incorporate the requirements and acceptance limits contained in applicable design documents into the EDG battery service test procedures.

Specifically, the design requirement of the EDG batteries to supply adequate voltage to
the EDG output breakers was not incorporated into the service test load profile for the EDG batteries. This prevented verification within the test of the capability of the batteries to close the output breakers which is a design requirement during events with a postulated loss-of-offsite power. AmerGen entered the issue into their corrective action program to revise the EDG battery sizing calculation and evaluate the appropriate incorporation of the design requirements into the service test procedure.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding has very low safety significance, based on a Phase 1 review of the SDP, documented in NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," because it did not represent the loss of safety function of the EDG batteries. (Section 1R21.2.1.15)
Inspection Report# : 2007006 *(pdf)*

Significance: G May 25, 2007
Identified By: NRC
Item Type: FIN Finding
Inadequate Containment Hardened Vent Valve Accumulator Test Criteria
The team identified a finding of very low safety significance (Green), in that, the licensee did not correctly translate the design of the containment hardened vent valve accumulators into test procedures. Specifically, the acceptance criteria for allowable accumulator pressure drop within the periodic test procedure was not consistent with the original design criteria and did not ensure the assumed design capability of the valves during loss of instrument air events. The valves provide a method of permitting a controlled depressurization of primary containment during severe accident

sequences that involve loss of decay heat removal. AmerGen entered this issue into their corrective action program to revise the test criteria to be consistent with the original design of the valve accumulators.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone's objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the team conducted a Phase 1 SDP screening and conservatively determined a more detailed Phase 2 SDP evaluation was required to assess the safety significance because the finding affected the mitigation system containment vent function. The finding was determined to be of very low safety significance (Green) based upon the Phase 2 SDP evaluation. There was no violation of NRC requirements because the performance deficiency was associated with postulated beyond design basis events. (Section 1R21.2.2.2)
Inspection Report# : 2007006 *(pdf)*

Significance: G Mar 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Identification of an Inoperable Fire Barrier Door
The inspectors identified that AmerGen did not properly implement fire protection plan requirements on January 11 and January 16, 2007. Specifically, AmerGen did not identify that a fire barrier door for the safety-related 'B' 480 volt room was obstructed, preventing the door from closing if a fire was detected in the area. This finding was determined to be an NCV of license condition 2.C(3), "Fire Protection." AmerGen's corrective actions involved issuing a site wide communication reinforcing the requirements of not blocking open fire doors.

The finding was more than minor because it was associated with the protection against external factors (fires) attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," 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 although the issue was assigned a degradation rating of moderate, there were no appreciable combustibles or ignition sources in the stairway adjacent to the inoperable fire door. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify completely and accurately, and in a timely manner that the fire barrier door was obstructed from closing (inoperable); and therefore did not meet the requirements of the Oyster Creek fire protection plan [P.1.(a)]. (Section 1R05)
Inspection Report# : 2007002 *(pdf)*

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate Operability Determination Associated With Elevated Isolation Condenser Shell Temperatures
The inspectors identified that AmerGen did not perform an adequate operability determination to assure the 'A' isolation condenser (IC) could meet its design bases requirements with elevated shell temperatures on October 6, 2006. This finding was determined not to involve a violation of regulatory requirements. AmerGen's corrective actions included repairing the valve, operator training on operability determinations, and revising procedures and calculations.

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 ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is also similar to more than minor example 3.I in NRC Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," in that calculations had to be re-performed to assure design requirements were met. 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 a period of time 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. This performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate a problem for operability. (Section 1R15)
Inspection Report# : 2006005 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Implementation Results in Loss of Power to the 'B' 125V DC Distribution Center
A self revealing finding was identified regarding inadequate procedure implementation when the 'B' 125 VDC battery main breaker was inadvertently operated and resulted in a loss of power to the 'B' DC distribution center on October 10, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1, "Procedures and Programs." AmerGen's corrective actions included disqualifying and re-mediating the operators involved, re-communicating management's expectations that self and peer checks and other error prevention tools should be utilized, and revising the operating procedure.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (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 one or more non-technical specification trains 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 cross-cutting aspect in the area of human performance because operations personnel did not properly utilize human error prevention techniques such as self and peer checking. (Section 4OA3)
Inspection Report# : 2006005 *(pdf)*

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection Plan Requirements Not Implemented
The inspectors identified that AmerGen did not implement fire protection plan requirements on August 17, 2006. Specifically, AmerGen did not identify that a low pressure condition existed on the 4160 Volt carbon dioxide (CO_2) suppression system which resulted in the system being inoperable, and a continuous fire watch was not established in accordance with fire protection procedures. This finding was determined to be a non-cited violation of License Condition 2.C(3), "Fire Protection." AmerGen's proposed corrective actions included changing the analog gauge to a digital gauge, implementing an alarm response procedure for the local alarm, and operator training on proper gauge reading.

The finding was more than minor because it was associated with the protection against external factors (fires) attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," 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 assigned a degradation rating of low since the fire protection program element would have only minimally impacted the reliability and performance of the system. The performance deficiency had a human performance cross-cutting aspect. (Section 1R05)

Inspection Report# : 2006004 *(pdf)*

Significance: G Sep 30, 2006

Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Foreign Material Control Results in #1 Emergency Diesel Generator Unavailability
A self-revealing finding was identified regarding inadequate foreign material control during performance of a maintenance activity on the #1 emergency diesel generator (EDG) on July 10, 2006. During performance of vibration data collection, a vibration probe cable became entangled with the shaft of the EDG intake air bin blower, resulting in the unit being secured, and the EDG being unavailable for inspection and retrieval of foreign material. This finding was determined not to involve a violation of NRC requirements. AmerGen's corrective actions included taking the EDG out of service to remove all foreign material, and a subsequent post maintenance test to verify operability of the EDG.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability 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 a period of time 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 for external events. The performance deficiency had a human performance cross-cutting aspect. (Section 1R22)
Inspection Report# : 2006004 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Actions for the 'A' ESW pump breaker
A self-revealing finding was identified when AmerGen did not take timely corrective actions for a degraded condition on the 'A' emergency service water (ESW) pump. Specifically, a corrective action identified in February 2006 was not completed in a timely manner and resulted in the pump not starting on July 14, 2006. This finding was determined to be a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included performing resistance checks on the contacts which could impact proper operation of the other ESW pump breakers.

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 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 a period of time 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 problem identification and resolution cross-cutting aspect. (Section 1R22)
Inspection Report# : 2006004 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: N/A Jun 08, 2007
Identified By: NRC
Item Type: FIN Finding
NRC Emergency Preparedness Supplemental Inspection 95001 Results
The NRC performed this supplemental inspection to assess AmerGen's evaluation for an issue associated with Oyster Creek operators not recognizing during an August 2005 event that plant parameters met the Emergency Action Level threshold for declaring an Unusual Event and a subsequent Alert. This performance issue was characterized as having low to moderate risk significance (White) in NRC Inspection Report No. 05000219/2005011. The licensee determined that human performance issues related to procedural compliance were a primary causal factor that led to the performance problems identified during the August 2005 event. The licensee's root cause evaluation of the issue was assessed by the NRC in June 2006, during a 95002 supplemental inspection (Report No. 05000219/2006010). During this inspection, the NRC concluded that licensed operators continued to demonstrate weaknesses associated with understanding of management expectations and site requirements for procedure use and adherence. As a result, the White finding was maintained open pending completion of an additional follow-up NRC supplemental inspection to review additional AmerGen corrective actions to improve the licensed operators' knowledge of and adherence to procedural usage requirements.

During this 95001 supplemental inspection, the inspectors determined that AmerGen had performed a comprehensive evaluation of the procedure use and adherence issue. The licensee's evaluation determined that the root cause for the issue to be that Operations Management had failed to provide clear expectations for, and had failed to consistently enforce, standards related to procedure use and adherence to all levels of the site staff. AmerGen implemented corrective actions to ensure that management expectations for procedure use are consistently communicated to, and reinforced with, licensed operators at Oyster Creek. As a result of their root cause determination, AmerGen broadened their extent-of-condition review to apply the corrective actions regarding management expectations for procedure use across all organizations at the site.

Based on the results of this inspection, the inspectors concluded that AmerGen adequately completed a root cause evaluation of the procedure use performance deficiency associated with this White finding. Additionally, the inspectors concluded that the planned and completed corrective actions appeared reasonable to address the related causes. Given AmerGen's acceptable performance in addressing the procedure use and adherence issue, the White finding associated with this issue will only be considered in assessing plant performance through the second quarter of 2007, in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program." Further implementation of the licensee's corrective actions may be reviewed during future inspections.
Inspection Report# : 2007007 *(pdf)*

Significance: W 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

Public Radiation Safety

Significance: G Jun 29, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Identification of Unacceptable Quality Assurance Test Results for Effluent Monitoring
The inspectors identified that quality assurance test results for effluent monitoring of Sr-89 and Sr-90 in the first quarter of 2006 did not meet test acceptance criteria and AmerGen had not evaluated the condition as of April 27, 2007. This finding was determined to be a non-cited violation of technical specification 6.8.1i, "Procedures and Programs." AmerGen's corrective actions involved evaluating the test results to understand their potential impact to the public.

The finding was more than minor because it was associated with the effluent measurement quality control attribute of the public radiation 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 operations. In accordance with Inspection Manual Chapter 0609, Appendix D, "Public Radiation Safety Significance Determination Process," this finding was determined to be of very low safety significance (Green), the issue was not a radioactive material control issue, it involved the effluent release program, there was no impaired ability to assess dose, and public radiation doses did not exceed 10 CFR 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents," values. The performance deficiency had a cross cutting aspect in the area of problem identification and resolution because AmerGen did not identify completely, accurately, and in a timely manner that the test results did not meet their acceptance criteria [P.1(a)].

Inspection Report# : 2007003 *(pdf)*

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.

Miscellaneous

Last modified : August 24, 2007

Oyster Creek
3Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
'D' EMRV Adverse Trend Not Properly Identified
A self-revealing finding was identified when AmerGen did not properly identify an adverse trend on the 'D' electromatic relief valve (EMRV) pressure switch between May 2006 and December 2006, which resulted in an opening of the 'D' EMRV below its actuation setpoint at full power. This finding was determined to be an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions for this issue involved replacing the pressure switch, developing an improved trending method for the EMRV pressure switches, and evaluating the need to utilize a different style pressure switch or changing the surveillance procedure.

The finding was more then minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors conducted a Phase 1 SDP screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined the finding was of very low safety significance (Green). The finding was of very low safety significance because no initiating event or transient actually occurred and the finding did not contribute to the likelihood that mitigating equipment or functions would be unavailable. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify an adverse trend and assess information from the corrective action program and surveillance tests to identify a problem with the 'D' EMRV pressure switch [P.1.(b)]. (Section 4OA3)
Inspection Report# : 2007002 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Clearance Activity Performed Out of Sequence And Causes Trip of 'A' Shutdown Cooling Pump
A self-revealing finding was identified regarding inadequate procedure adherence when work activities on the 480 V '1A2' switchgear during 1R21 refueling outage resulted in a trip of a reactor building closed cooling water (RBCCW) and shutdown cooling (SDC) pump on October 22, 2006. Specifically, the steps in the clearance order were performed out of sequence. This finding was determined to be a non-cited violation of technical specification 6.8.1a, "Procedures and Programs." AmerGen's corrective actions for this issue involved re-mediating the operators involved; and senior management lead training sessions with all operations personnel which reviewed management's expectations for use of error prevention tools such as procedural compliance, peer checking, and questioning attitude.

The finding was more than minor because it was associated with the configuration control attribute of the initiating events cornerstone and affected the objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown operations. This finding was evaluated using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process ," attachment 1, checklist 7 because it occurred during a refuel outage and reactor coolant system level in the reactor vessel was greater than 23 feet. The finding was of very low safety significance because the issue did not degrade the licensee's ability to recover decay heat removal once it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance because operators did not follow procedures. (Section 1R20)
Inspection Report# : 2006005 *(pdf)*

Mitigating Systems

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded Condition on the Remote Shutdown Panel Not Properly Identified.
The inspectors identified that AmerGen did not properly identify that the remote shutdown panel (RSP) was not capable of performing its design function when the 'B' isolation condenser (IC) makeup valve control power indicating status light was not illuminated on June 21, 2007. This finding was of very low safety significance (Green) and determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included repairing the RSP and discussing this issue with operations personnel on the adequacy of operability evaluations.

The finding was more than minor because it was associated with the protection against external factors (fire and toxic hazard) attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix F, "Fire Protection Significance Determination Process (SDP)," the inspectors conducted a Phase I SDP screening utilizing Figure F.1 in Appendix F. Per the Phase I screening criteria, the finding was assigned the category of "post-fire safe shutdown." The inspectors assigned a low degradation rating in accordance with Attachment 2 of Appendix F. A low degradation rating was assigned, because procedures existed and operators were trained at operating the 'B' IC makeup valve locally; and operators have a significant amount of time to complete the local operation. Therefore, in accordance with Appendix F step 1.3.1, "Qualitative Screening for All Finding Categories," this finding screened as very low safety significance because the finding was assigned a low degradation rating. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate a problem for operability [P.1.(c)]. (Section 1R15)
Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Repair of a Fire Rated Penetration Seal
The inspectors identified that AmerGen did not properly implement fire protection plan requirements on June 22, 2007. Specifically, AmerGen did not repair fire penetration 762 in accordance with procedures and resulted in an unqualified configuration of sealing materials being installed in the plant. This finding was determined to be a NCV of license condition 2.C(3), "Fire Protection." AmerGen's corrective actions involved evaluating the as-found penetration seal for effectiveness in preventing the spread of a fire and procuring a fire seal qualification test that qualified the installed configuration; and evaluating the process and programs used to repair fire penetration seals in the plant.

The finding was more than minor because it was associated with the external factors (fires) attribute of the mitigating systems cornerstone and affected the objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Apendix F, "Fire Protection Significance Determination Process," the inspectors conducted a Phase I SDP screening utilizing Figure F.1. Per the Phase I screening criteria the finding was assigned the category of "Fire Confinement." The inspectors assigned a "Moderate B" degradation rating to the installed fire penetration seal in accordance with Attachment 2, Table A2.2 of Appendix F, because the installed seal configuration was between 6 and 9 inches and there was no test or evaluation available to qualify its fire rating. Therefore in accordance with Appendix F, step 1.3.2, "Supplemental Screening for Fire confinement Findings," screening criteria 3, this finding screened as very low safety significance because both sides of the wall were protected by a non-degraded automatic water based fire suppression system. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not assure that accurate work packages were available to ensure that a qualified fire penetration seal was installed in the plant [H.2(c)]. (Section 1R19)
Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 28, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Implementation During Response to a Reactor Feedpump Trip and Reactor Scram
A self-revealing finding was identified when AmerGen personnel did not properly implement procedural guidance during a response to a reactor feedwater pump (RFP) trip and a reactor scram on July 17, 2007. Specifically, the operating crew did not properly reduce reactor power as directed by an abnormal operating procedure; and did not properly implement EOP support procedures which challenged reactor water level control during recovery activities. This finding was determined to be a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." AmerGen's corrective actions included revising the abnormal procedure to provide enhanced instructions, providing all operations personnel remedial training sessions in the simulator on this event, and issuing a standing order communicating operation's management expectations on operator response.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was assessed in accordance with IMC 0609, Appendix A, Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors performed a Phase 1 screening and determined that a Phase 2 evaluation was required to assess safety significance because the failure to properly implement procedure guidance in response to and during the event affected both the initiating and mitigating cornerstones. A Region 1 senior reactor analyst (SRA) determined that a Phase 2 evaluation was not suited to assess this event. A Phase 3 analysis was performed by the SRA and the finding was determined to be of very low safety significance. The performance deficiency had a cross-cutting aspect in the area of human performance because the operating crew did not follow procedures during their response to the event [H.4(b)]. (Section 4OA3)
Inspection Report# : 2007004 *(pdf)*

Significance: G May 25, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Acceptance Criteria In Emergency Diesel Generator Battery Service Test Procedures
The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," in that, AmerGen did not incorporate the requirements and acceptance limits contained in applicable design documents into the EDG battery service test procedures.

Specifically, the design requirement of the EDG batteries to supply adequate voltage to
the EDG output breakers was not incorporated into the service test load profile for the EDG batteries. This prevented verification within the test of the capability of the batteries to close the output breakers which is a design requirement during events with a postulated loss-of-offsite power. AmerGen entered the issue into their corrective action program to revise the EDG battery sizing calculation and evaluate the appropriate incorporation of the design requirements into the service test procedure.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding has very low safety significance, based on a Phase 1 review of the SDP, documented in NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," because it did not represent the loss of safety function of the EDG batteries. (Section 1R21.2.1.15)
Inspection Report# : 2007006 *(pdf)*

Significance: G May 25, 2007
Identified By: NRC
Item Type: FIN Finding
Inadequate Containment Hardened Vent Valve Accumulator Test Criteria
The team identified a finding of very low safety significance (Green), in that, the licensee did not correctly translate the design of the containment hardened vent valve accumulators into test procedures. Specifically, the acceptance

criteria for allowable accumulator pressure drop within the periodic test procedure was not consistent with the original design criteria and did not ensure the assumed design capability of the valves during loss of instrument air events. The valves provide a method of permitting a controlled depressurization of primary containment during severe accident sequences that involve loss of decay heat removal. AmerGen entered this issue into their corrective action program to revise the test criteria to be consistent with the original design of the valve accumulators.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone's objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the team conducted a Phase 1 SDP screening and conservatively determined a more detailed Phase 2 SDP evaluation was required to assess the safety significance because the finding affected the mitigation system containment vent function. The finding was determined to be of very low safety significance (Green) based upon the Phase 2 SDP evaluation. There was no violation of NRC requirements because the performance deficiency was associated with postulated beyond design basis events. (Section 1R21.2.2.2)
Inspection Report# : 2007006 *(pdf)*

Significance: G Mar 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Identification of an Inoperable Fire Barrier Door
The inspectors identified that AmerGen did not properly implement fire protection plan requirements on January 11 and January 16, 2007. Specifically, AmerGen did not identify that a fire barrier door for the safety-related 'B' 480 volt room was obstructed, preventing the door from closing if a fire was detected in the area. This finding was determined to be an NCV of license condition 2.C(3), "Fire Protection." AmerGen's corrective actions involved issuing a site wide communication reinforcing the requirements of not blocking open fire doors.

The finding was more than minor because it was associated with the protection against external factors (fires) attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," 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 although the issue was assigned a degradation rating of moderate, there were no appreciable combustibles or ignition sources in the stairway adjacent to the inoperable fire door. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify completely and accurately, and in a timely manner that the fire barrier door was obstructed from closing (inoperable); and therefore did not meet the requirements of the Oyster Creek fire protection plan [P.1.(a)]. (Section 1R05)
Inspection Report# : 2007002 *(pdf)*

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate Operability Determination Associated With Elevated Isolation Condenser Shell Temperatures
The inspectors identified that AmerGen did not perform an adequate operability determination to assure the 'A' isolation condenser (IC) could meet its design bases requirements with elevated shell temperatures on October 6, 2006. This finding was determined not to involve a violation of regulatory requirements. AmerGen's corrective actions included repairing the valve, operator training on operability determinations, and revising procedures and calculations.

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 ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is also similar to more than minor example 3.I in NRC Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," in that calculations had to be re-performed to assure design requirements were met. 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 a period of time 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. This performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate a problem for operability. (Section 1R15)
Inspection Report# : 2006005 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Implementation Results in Loss of Power to the 'B' 125V DC Distribution Center
A self revealing finding was identified regarding inadequate procedure implementation when the 'B' 125 VDC battery main breaker was inadvertently operated and resulted in a loss of power to the 'B' DC distribution center on October 10, 2006. This finding was determined to be a non-cited violation of technical specification 6.8.1, "Procedures and Programs." AmerGen's corrective actions included disqualifying and re-mediating the operators involved, re-communicating management's expectations that self and peer checks and other error prevention tools should be utilized, and revising the operating procedure.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to maintain the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (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 one or more non-technical specification trains 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 cross-cutting aspect in the area of human performance because operations personnel did not properly utilize human error prevention techniques such as self and peer checking. (Section 4OA3)
Inspection Report# : 2006005 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Sep 27, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Require State PAR Notifications Within 15 Minutes of Emergency Declaration.
A NRC-identified non-cited violation (NCV) of 10 CFR 50.47(b)(5) and 10 CFR Part 50, Appendix E, Section IV.D.3, was identified for failure of the licensee's state and local notifications procedures to require that the notifications of protective action recommendations (PARs) be made to the state within 15 minutes of the declaration of a General Emergency. The licensee's procedures required that the state be notified of a PAR within 15 minutes of the PAR determination, which would occur at some point after the declaration of the General Emergency. The licensee entered the deficiency with the procedures into their corrective action program.

This finding is greater than minor because it is associated with the Emergency Response Organization Performance attribute and affected the objective of the Emergency Preparedness Cornerstone to ensure that the licensee is capable

of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. In accordance with the Emergency Preparedness Significance Determination Process, this finding is of very low safety significance because licensee expectations and training have resulted in the state being notified of PARs within 15 minutes, and the procedure deficiencies did not affect the outcome of protecting the health and safety of the public. (Section 1EP1)
Inspection Report# : 2007502 *(pdf)*

Significance: N/A Jun 08, 2007
Identified By: NRC
Item Type: FIN Finding
NRC Emergency Preparedness Supplemental Inspection 95001 Results
The NRC performed this supplemental inspection to assess AmerGen's evaluation for an issue associated with Oyster Creek operators not recognizing during an August 2005 event that plant parameters met the Emergency Action Level threshold for declaring an Unusual Event and a subsequent Alert. This performance issue was characterized as having low to moderate risk significance (White) in NRC Inspection Report No. 05000219/2005011. The licensee determined that human performance issues related to procedural compliance were a primary causal factor that led to the performance problems identified during the August 2005 event. The licensee's root cause evaluation of the issue was assessed by the NRC in June 2006, during a 95002 supplemental inspection (Report No. 05000219/2006010). During this inspection, the NRC concluded that licensed operators continued to demonstrate weaknesses associated with understanding of management expectations and site requirements for procedure use and adherence. As a result, the White finding was maintained open pending completion of an additional follow-up NRC supplemental inspection to review additional AmerGen corrective actions to improve the licensed operators' knowledge of and adherence to procedural usage requirements.

During this 95001 supplemental inspection, the inspectors determined that AmerGen had performed a comprehensive evaluation of the procedure use and adherence issue. The licensee's evaluation determined that the root cause for the issue to be that Operations Management had failed to provide clear expectations for, and had failed to consistently enforce, standards related to procedure use and adherence to all levels of the site staff. AmerGen implemented corrective actions to ensure that management expectations for procedure use are consistently communicated to, and reinforced with, licensed operators at Oyster Creek. As a result of their root cause determination, AmerGen broadened their extent-of-condition review to apply the corrective actions regarding management expectations for procedure use across all organizations at the site.

Based on the results of this inspection, the inspectors concluded that AmerGen adequately completed a root cause evaluation of the procedure use performance deficiency associated with this White finding. Additionally, the inspectors concluded that the planned and completed corrective actions appeared reasonable to address the related causes. Given AmerGen's acceptable performance in addressing the procedure use and adherence issue, the White finding associated with this issue will only be considered in assessing plant performance through the second quarter of 2007, in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program." Further implementation of the licensee's corrective actions may be reviewed during future inspections.
Inspection Report# : 2007007 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Significance:  Jun 29, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Identification of Unacceptable Quality Assurance Test Results for Effluent Monitoring
The inspectors identified that quality assurance test results for effluent monitoring of Sr-89 and Sr-90 in the first quarter of 2006 did not meet test acceptance criteria and AmerGen had not evaluated the condition as of April 27,

2007. This finding was determined to be a non-cited violation of technical specification 6.8.1i, “Procedures and Programs.” AmerGen’s corrective actions involved evaluating the test results to understand their potential impact to the public.

The finding was more than minor because it was associated with the effluent measurement quality control attribute of the public radiation 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 operations. In accordance with Inspection Manual Chapter 0609, Appendix D, “Public Radiation Safety Significance Determination Process,” this finding was determined to be of very low safety significance (Green), the issue was not a radioactive material control issue, it involved the effluent release program, there was no impaired ability to assess dose, and public radiation doses did not exceed 10 CFR 50, Appendix I, “Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion ‘As Low As Reasonably Achievable’ for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents,” values. The performance deficiency had a cross cutting aspect in the area of problem identification and resolution because AmerGen did not identify completely, accurately, and in a timely manner that the test results did not meet their acceptance criteria [P.1(a)].

Inspection Report# : 2007003 *(pdf)*

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.

Miscellaneous

Last modified : December 07, 2007

Oyster Creek
4Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Service Water Pump Motor Failure Due to Inadequate Refurbishment Process
A self revealing finding occurred when the '1-1' service water pump motor failed on August 15, 2007 due to an inadequate motor refurbishment by a vendor. AmerGen previously noted a problem with the motor refurbishment process used by the vendor in July 2005, however they did not take actions to address this issue. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions for this issue included replacing the motor and informing the vendor of the issue.

The finding is 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 upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a significance determination process (SDP) Phase 1 screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance (Green) based upon the Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not take appropriate corrective actions to address the issues identified with the quality of vendor practices [P.1(d)]. (Section 1R12)
Inspection Report# : 2007005 *(pdf)*

Significance: G Mar 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
'D' EMRV Adverse Trend Not Properly Identified
A self-revealing finding was identified when AmerGen did not properly identify an adverse trend on the 'D' electromatic relief valve (EMRV) pressure switch between May 2006 and December 2006, which resulted in an opening of the 'D' EMRV below its actuation setpoint at full power. This finding was determined to be an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions for this issue involved replacing the pressure switch, developing an improved trending method for the EMRV pressure switches, and evaluating the need to utilize a different style pressure switch or changing the surveillance procedure.

The finding was more then minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors conducted a Phase 1 SDP screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined the finding was of very low safety significance (Green). The finding was of very low safety significance because no initiating event or transient actually occurred and the finding did not contribute to the likelihood that mitigating equipment or functions would be unavailable. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify an adverse trend and assess information from the corrective action program and surveillance tests to identify a problem with the 'D' EMRV pressure switch [P.1.(b)]. (Section 4OA3)
Inspection Report# : 2007002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Degraded Fuel Oil in the 1-1 Fire Diesel Fuel Oil Storage Tank Not Identified
A self revealing finding occurred when AmerGen did not identify a degraded fuel oil condition on the '1-1' diesel driven fire pump in September 2007. This resulted in the pump being unable to maintain adequate discharge pressure on October 1, 2007 during testing due to restricted fuel flow caused by clogged fuel filters. The finding was determined not to be a violation of regulatory requirements. AmerGen's corrective actions included removing the fuel oil sludge from the system; and proposed actions to revise the fuel oil tank cleaning procedure, providing administrative limits for particulate contamination in the chemistry procedure, and briefing chemistry personnel on the importance of properly trending data.

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 ensure the availability, reliability, and capability 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 SDP Phase I screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding involved an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for greater than 24 hours. The finding was determined to be of very low safety significance based upon a Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify an adverse trend in fuel oil particulate which impacted the safety function on the '1-1' diesel driven fire pump [P.1(a)]. (Section 1R12)
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Operations Personnel Did Not Appropriately Implement Reactor Startup Procedure
The inspectors identified that AmerGen did not properly implement procedures during a reactor startup on July 20, 2007. Specifically, operations personnel withdrew source range monitors (SRM) from the core without first ensuring adequate overlap with the intermediate range monitors (IRM) as prescribed by procedures. The finding was of very low safety significance and determined to be a NCV of technical specification 6.8.1, "Procedures and Programs." AmerGen's proposed corrective actions for this issue involve revising the operating procedure and providing training to operations personnel on this issue.

The finding is more than minor because it was associated with the human performance attribute (pre-event) of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a SDP Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The performance deficiency had a cross-cutting aspect in the area of human performance because operations personnel did not to follow procedures when they continued with the plant startup even though they did not meet the operating procedures requirements [H.4(b)]. (Section 4OA2)
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation

Inadequate Evaluation of IRM Channels Prior to Reactor Startup
A self-revealing finding occurred when AmerGen operated in a condition prohibited by technical specifications on July 20, 2007. Specifically, AmerGen did not identify that intermediate range monitor (IRM)-16 was inoperable and ensure that the required number of IRM channels for the reactor protection system were available for a reactor startup. This finding was of very low safety significance and determined to be a NCV of Oyster Creek technical specification 3.1, “Protective Instrumentation.” AmerGen's corrective actions for this issue included replacing IRM 16 detector and developing lessons learned for reviewing operability of IRMs.

The finding is more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a SDP Phase 1 screening in accordance with IMC 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations.” The finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate the operability of IRM-16 prior to a reactor startup as requested [P.1(c)]. (Section 4OA3)
Inspection Report# : 2007005 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded Condition on the Remote Shutdown Panel Not Properly Identified.
The inspectors identified that AmerGen did not properly identify that the remote shutdown panel (RSP) was not capable of performing its design function when the ‘B’ isolation condenser (IC) makeup valve control power indicating status light was not illuminated on June 21, 2007. This finding was of very low safety significance (Green) and determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action.” AmerGen’s corrective actions included repairing the RSP and discussing this issue with operations personnel on the adequacy of operability evaluations.

The finding was more than minor because it was associated with the protection against external factors (fire and toxic hazard) attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix F, “Fire Protection Significance Determination Process (SDP),” the inspectors conducted a Phase I SDP screening utilizing Figure F.1 in Appendix F. Per the Phase I screening criteria, the finding was assigned the category of “post-fire safe shutdown.” The inspectors assigned a low degradation rating in accordance with Attachment 2 of Appendix F. A low degradation rating was assigned, because procedures existed and operators were trained at operating the ‘B’ IC makeup valve locally; and operators have a significant amount of time to complete the local operation. Therefore, in accordance with Appendix F step 1.3.1, “Qualitative Screening for All Finding Categories,” this finding screened as very low safety significance because the finding was assigned a low degradation rating. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate a problem for operability [P.1.(c)]. (Section 1R15)
Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Repair of a Fire Rated Penetration Seal
The inspectors identified that AmerGen did not properly implement fire protection plan requirements on June 22, 2007. Specifically, AmerGen did not repair fire penetration 762 in accordance with procedures and resulted in an unqualified configuration of sealing materials being installed in the plant. This finding was determined to be a NCV of license condition 2.C(3), “Fire Protection.” AmerGen’s corrective actions involved evaluating the as-found penetration seal for effectiveness in preventing the spread of a fire and procuring a fire seal qualification test that qualified the installed configuration; and evaluating the process and programs used to repair fire penetration seals in

the plant.

The finding was more than minor because it was associated with the external factors (fires) attribute of the mitigating systems cornerstone and affected the objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Apendix F, "Fire Protection Significance Determination Process," the inspectors conducted a Phase I SDP screening utilizing Figure F.1. Per the Phase I screening criteria the finding was assigned the category of "Fire Confinement." The inspectors assigned a "Moderate B" degradation rating to the installed fire penetration seal in accordance with Attachment 2, Table A2.2 of Appendix F, because the installed seal configuration was between 6 and 9 inches and there was no test or evaluation available to qualify its fire rating. Therefore in accordance with Appendix F, step 1.3.2, "Supplemental Screening for Fire confinement Findings," screening criteria 3, this finding screened as very low safety significance because both sides of the wall were protected by a non-degraded automatic water based fire suppression system. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not assure that accurate work packages were available to ensure that a qualified fire penetration seal was installed in the plant [H.2(c)]. (Section 1R19)
Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 28, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Implementation During Response to a Reactor Feedpump Trip and Reactor Scram
A self-revealing finding was identified when AmerGen personnel did not properly implement procedural guidance during a response to a reactor feedwater pump (RFP) trip and a reactor scram on July 17, 2007. Specifically, the operating crew did not properly reduce reactor power as directed by an abnormal operating procedure; and did not properly implement EOP support procedures which challenged reactor water level control during recovery activities. This finding was determined to be a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." AmerGen's corrective actions included revising the abnormal procedure to provide enhanced instructions, providing all operations personnel remedial training sessions in the simulator on this event, and issuing a standing order communicating operation's management expectations on operator response.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was assessed in accordance with IMC 0609, Appendix A, Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors performed a Phase 1 screening and determined that a Phase 2 evaluation was required to assess safety significance because the failure to properly implement procedure guidance in response to and during the event affected both the initiating and mitigating cornerstones. A Region 1 senior reactor analyst (SRA) determined that a Phase 2 evaluation was not suited to assess this event. A Phase 3 analysis was performed by the SRA and the finding was determined to be of very low safety significance. The performance deficiency had a cross-cutting aspect in the area of human performance because the operating crew did not follow procedures during their response to the event [H.4(b)]. (Section 4OA3)
Inspection Report# : 2007004 *(pdf)*

Significance: G May 25, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Acceptance Criteria In Emergency Diesel Generator Battery Service Test Procedures
The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," in that, AmerGen did not incorporate the requirements and acceptance limits contained in applicable design documents into the EDG battery service test procedures.

Specifically, the design requirement of the EDG batteries to supply adequate voltage to
the EDG output breakers was not incorporated into the service test load profile for the EDG batteries. This prevented verification within the test of the capability of the batteries to close the output breakers which is a design requirement during events with a postulated loss-of-offsite power. AmerGen entered the issue into their corrective action program to revise the EDG battery sizing calculation and evaluate the appropriate incorporation of the design requirements into

the service test procedure.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding has very low safety significance, based on a Phase 1 review of the SDP, documented in NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," because it did not represent the loss of safety function of the EDG batteries. (Section 1R21.2.1.15)
Inspection Report# : 2007006 *(pdf)*

Significance: G May 25, 2007
Identified By: NRC
Item Type: FIN Finding
Inadequate Containment Hardened Vent Valve Accumulator Test Criteria
The team identified a finding of very low safety significance (Green), in that, the licensee did not correctly translate the design of the containment hardened vent valve accumulators into test procedures. Specifically, the acceptance criteria for allowable accumulator pressure drop within the periodic test procedure was not consistent with the original design criteria and did not ensure the assumed design capability of the valves during loss of instrument air events. The valves provide a method of permitting a controlled depressurization of primary containment during severe accident sequences that involve loss of decay heat removal. AmerGen entered this issue into their corrective action program to revise the test criteria to be consistent with the original design of the valve accumulators.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone's objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the team conducted a Phase 1 SDP screening and conservatively determined a more detailed Phase 2 SDP evaluation was required to assess the safety significance because the finding affected the mitigation system containment vent function. The finding was determined to be of very low safety significance (Green) based upon the Phase 2 SDP evaluation. There was no violation of NRC requirements because the performance deficiency was associated with postulated beyond design basis events. (Section 1R21.2.2.2)
Inspection Report# : 2007006 *(pdf)*

Significance: G Mar 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Identification of an Inoperable Fire Barrier Door
The inspectors identified that AmerGen did not properly implement fire protection plan requirements on January 11 and January 16, 2007. Specifically, AmerGen did not identify that a fire barrier door for the safety-related 'B' 480 volt room was obstructed, preventing the door from closing if a fire was detected in the area. This finding was determined to be an NCV of license condition 2.C(3), "Fire Protection." AmerGen's corrective actions involved issuing a site wide communication reinforcing the requirements of not blocking open fire doors.

The finding was more than minor because it was associated with the protection against external factors (fires) attribute of the mitigating systems cornerstone and affected the objective to maintain the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," 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 although the issue was assigned a degradation rating of moderate, there were no appreciable combustibles or ignition sources in the stairway adjacent to the inoperable fire door. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify completely and accurately, and in a timely manner that the fire barrier door was obstructed from closing (inoperable); and therefore did not meet the requirements of the Oyster Creek fire protection plan [P.1.(a)]. (Section 1R05)
Inspection Report# : 2007002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Sep 27, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Require State PAR Notifications Within 15 Minutes of Emergency Declaration.
A NRC-identified non-cited violation (NCV) of 10 CFR 50.47(b)(5) and 10 CFR Part 50, Appendix E, Section IV.D.3, was identified for failure of the licensee's state and local notifications procedures to require that the notifications of protective action recommendations (PARs) be made to the state within 15 minutes of the declaration of a General Emergency. The licensee's procedures required that the state be notified of a PAR within 15 minutes of the PAR determination, which would occur at some point after the declaration of the General Emergency. The licensee entered the deficiency with the procedures into their corrective action program.

This finding is greater than minor because it is associated with the Emergency Response Organization Performance attribute and affected the objective of the Emergency Preparedness Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. In accordance with the Emergency Preparedness Significance Determination Process, this finding is of very low safety significance because licensee expectations and training have resulted in the state being notified of PARs within 15 minutes, and the procedure deficiencies did not affect the outcome of protecting the health and safety of the public. (Section 1EP1)
Inspection Report# : 2007502 *(pdf)*

Significance: N/A Jun 08, 2007
Identified By: NRC
Item Type: FIN Finding
NRC Emergency Preparedness Supplemental Inspection 95001 Results
The NRC performed this supplemental inspection to assess AmerGen's evaluation for an issue associated with Oyster Creek operators not recognizing during an August 2005 event that plant parameters met the Emergency Action Level threshold for declaring an Unusual Event and a subsequent Alert. This performance issue was characterized as having low to moderate risk significance (White) in NRC Inspection Report No. 05000219/2005011. The licensee determined that human performance issues related to procedural compliance were a primary causal factor that led to the performance problems identified during the August 2005 event. The licensee's root cause evaluation of the issue was assessed by the NRC in June 2006, during a 95002 supplemental inspection (Report No. 05000219/2006010). During this inspection, the NRC concluded that licensed operators continued to demonstrate weaknesses associated with understanding of management expectations and site requirements for procedure use and adherence. As a result, the White finding was maintained open pending completion of an additional follow-up NRC supplemental inspection to review additional AmerGen corrective actions to improve the licensed operators' knowledge of and adherence to procedural usage requirements.

During this 95001 supplemental inspection, the inspectors determined that AmerGen had performed a comprehensive evaluation of the procedure use and adherence issue. The licensee's evaluation determined that the root cause for the issue to be that Operations Management had failed to provide clear expectations for, and had failed to consistently enforce, standards related to procedure use and adherence to all levels of the site staff. AmerGen implemented corrective actions to ensure that management expectations for procedure use are consistently communicated to, and reinforced with, licensed operators at Oyster Creek. As a result of their root cause determination, AmerGen broadened their extent-of-condition review to apply the corrective actions regarding management expectations for procedure use across all organizations at the site.

Based on the results of this inspection, the inspectors concluded that AmerGen adequately completed a root cause evaluation of the procedure use performance deficiency associated with this White finding. Additionally, the inspectors concluded that the planned and completed corrective actions appeared reasonable to address the related causes. Given AmerGen's acceptable performance in addressing the procedure use and adherence issue, the White

finding associated with this issue will only be considered in assessing plant performance through the second quarter of 2007, in accordance with the guidance in IMC 0305, “Operating Reactor Assessment Program.” Further implementation of the licensee’s corrective actions may be reviewed during future inspections.
Inspection Report# : 2007007 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Significance: G Jun 29, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Identification of Unacceptable Quality Assurance Test Results for Effluent Monitoring
The inspectors identified that quality assurance test results for effluent monitoring of Sr-89 and Sr-90 in the first quarter of 2006 did not meet test acceptance criteria and AmerGen had not evaluated the condition as of April 27, 2007. This finding was determined to be a non-cited violation of technical specification 6.8.1i, “Procedures and Programs.” AmerGen’s corrective actions involved evaluating the test results to understand their potential impact to the public.

The finding was more than minor because it was associated with the effluent measurement quality control attribute of the public radiation 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 operations. In accordance with Inspection Manual Chapter 0609, Appendix D, “Public Radiation Safety Significance Determination Process,” this finding was determined to be of very low safety significance (Green), the issue was not a radioactive material control issue, it involved the effluent release program, there was no impaired ability to assess dose, and public radiation doses did not exceed 10 CFR 50, Appendix I, “Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion ‘As Low As Reasonably Achievable’ for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents,” values. The performance deficiency had a cross cutting aspect in the area of problem identification and resolution because AmerGen did not identify completely, accurately, and in a timely manner that the test results did not meet their acceptance criteria [P.1(a)].

Inspection Report# : 2007003 *(pdf)*

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.

Miscellaneous

Last modified : February 04, 2008

Oyster Creek
1Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Service Water Pump Motor Failure Due to Inadequate Refurbishment Process
A self revealing finding occurred when the '1-1' service water pump motor failed on August 15, 2007 due to an inadequate motor refurbishment by a vendor. AmerGen previously noted a problem with the motor refurbishment process used by the vendor in July 2005, however they did not take actions to address this issue. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions for this issue included replacing the motor and informing the vendor of the issue.

The finding is 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 upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a significance determination process (SDP) Phase 1 screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance (Green) based upon the Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not take appropriate corrective actions to address the issues identified with the quality of vendor practices [P.1(d)]. (Section 1R12)
Inspection Report# : 2007005 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Degraded Fuel Oil in the 1-1 Fire Diesel Fuel Oil Storage Tank Not Identified
A self revealing finding occurred when AmerGen did not identify a degraded fuel oil condition on the '1-1' diesel driven fire pump in September 2007. This resulted in the pump being unable to maintain adequate discharge pressure on October 1, 2007 during testing due to restricted fuel flow caused by clogged fuel filters. The finding was determined not to be a violation of regulatory requirements. AmerGen's corrective actions included removing the fuel oil sludge from the system; and proposed actions to revise the fuel oil tank cleaning procedure, providing administrative limits for particulate contamination in the chemistry procedure, and briefing chemistry personnel on the importance of properly trending data.

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 ensure the availability, reliability, and capability 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 SDP Phase I screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding involved an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for greater than 24 hours. The finding was determined to be of very low safety significance based upon a Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area

of problem identification and resolution because AmerGen did not identify an adverse trend in fuel oil particulate which impacted the safety function on the '1-1' diesel driven fire pump [P.1(a)]. (Section 1R12)
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Operations Personnel Did Not Appropriately Implement Reactor Startup Procedure
The inspectors identified that AmerGen did not properly implement procedures during a reactor startup on July 20, 2007. Specifically, operations personnel withdrew source range monitors (SRM) from the core without first ensuring adequate overlap with the intermediate range monitors (IRM) as prescribed by procedures. The finding was of very low safety significance and determined to be a NCV of technical specification 6.8.1, "Procedures and Programs." AmerGen's proposed corrective actions for this issue involve revising the operating procedure and providing training to operations personnel on this issue.

The finding is more than minor because it was associated with the human performance attribute (pre-event) of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a SDP Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The performance deficiency had a cross-cutting aspect in the area of human performance because operations personnel did not to follow procedures when they continued with the plant startup even though they did not meet the operating procedures requirements [H.4(b)]. (Section 4OA2)
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Evaluation of IRM Channels Prior to Reactor Startup
A self-revealing finding occurred when AmerGen operated in a condition prohibited by technical specifications on July 20, 2007. Specifically, AmerGen did not identify that intermediate range monitor (IRM)-16 was inoperable and ensure that the required number of IRM channels for the reactor protection system were available for a reactor startup. This finding was of very low safety significance and determined to be a NCV of Oyster Creek technical specification 3.1, "Protective Instrumentation." AmerGen's corrective actions for this issue included replacing IRM 16 detector and developing lessons learned for reviewing operability of IRMs.

The finding is more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a SDP Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate the operability of IRM-16 prior to a reactor startup as requested [P.1(c)]. (Section 4OA3)
Inspection Report# : 2007005 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded Condition on the Remote Shutdown Panel Not Properly Identified.
The inspectors identified that AmerGen did not properly identify that the remote shutdown panel (RSP) was not

capable of performing its design function when the 'B' isolation condenser (IC) makeup valve control power indicating status light was not illuminated on June 21, 2007. This finding was of very low safety significance (Green) and determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." AmerGen's corrective actions included repairing the RSP and discussing this issue with operations personnel on the adequacy of operability evaluations.

The finding was more than minor because it was associated with the protection against external factors (fire and toxic hazard) attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix F, "Fire Protection Significance Determination Process (SDP)," the inspectors conducted a Phase I SDP screening utilizing Figure F.1 in Appendix F. Per the Phase I screening criteria, the finding was assigned the category of "post-fire safe shutdown." The inspectors assigned a low degradation rating in accordance with Attachment 2 of Appendix F. A low degradation rating was assigned, because procedures existed and operators were trained at operating the 'B' IC makeup valve locally; and operators have a significant amount of time to complete the local operation. Therefore, in accordance with Appendix F step 1.3.1, "Qualitative Screening for All Finding Categories," this finding screened as very low safety significance because the finding was assigned a low degradation rating. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate a problem for operability [P.1.(c)]. (Section 1R15)
Inspection Report# : 2007004 *(pdf)*

Significance:  Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Repair of a Fire Rated Penetration Seal
The inspectors identified that AmerGen did not properly implement fire protection plan requirements on June 22, 2007. Specifically, AmerGen did not repair fire penetration 762 in accordance with procedures and resulted in an unqualified configuration of sealing materials being installed in the plant. This finding was determined to be a NCV of license condition 2.C(3), "Fire Protection." AmerGen's corrective actions involved evaluating the as-found penetration seal for effectiveness in preventing the spread of a fire and procuring a fire seal qualification test that qualified the installed configuration; and evaluating the process and programs used to repair fire penetration seals in the plant.

The finding was more than minor because it was associated with the external factors (fires) attribute of the mitigating systems cornerstone and affected the objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Apendix F, "Fire Protection Significance Determination Process," the inspectors conducted a Phase I SDP screening utilizing Figure F.1. Per the Phase I screening criteria the finding was assigned the category of "Fire Confinement." The inspectors assigned a "Moderate B" degradation rating to the installed fire penetration seal in accordance with Attachment 2, Table A2.2 of Appendix F, because the installed seal configuration was between 6 and 9 inches and there was no test or evaluation available to qualify its fire rating. Therefore in accordance with Appendix F, step 1.3.2, "Supplemental Screening for Fire confinement Findings," screening criteria 3, this finding screened as very low safety significance because both sides of the wall were protected by a non-degraded automatic water based fire suppression system. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not assure that accurate work packages were available to ensure that a qualified fire penetration seal was installed in the plant [H.2(c)]. (Section 1R19)
Inspection Report# : 2007004 *(pdf)*

Significance:  Sep 28, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Implementation During Response to a Reactor Feedpump Trip and Reactor Scram
A self-revealing finding was identified when AmerGen personnel did not properly implement procedural guidance during a response to a reactor feedwater pump (RFP) trip and a reactor scram on July 17, 2007. Specifically, the operating crew did not properly reduce reactor power as directed by an abnormal operating procedure; and did not properly implement EOP support procedures which challenged reactor water level control during recovery activities. This finding was determined to be a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and

Drawings." AmerGen's corrective actions included revising the abnormal procedure to provide enhanced instructions, providing all operations personnel remedial training sessions in the simulator on this event, and issuing a standing order communicating operation's management expectations on operator response.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was assessed in accordance with IMC 0609, Appendix A, Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors performed a Phase 1 screening and determined that a Phase 2 evaluation was required to assess safety significance because the failure to properly implement procedure guidance in response to and during the event affected both the initiating and mitigating cornerstones. A Region 1 senior reactor analyst (SRA) determined that a Phase 2 evaluation was not suited to assess this event. A Phase 3 analysis was performed by the SRA and the finding was determined to be of very low safety significance. The performance deficiency had a cross-cutting aspect in the area of human performance because the operating crew did not follow procedures during their response to the event [H.4(b)]. (Section 4OA3)
Inspection Report# : 2007004 *(pdf)*

Significance: G May 25, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Acceptance Criteria In Emergency Diesel Generator Battery Service Test Procedures
The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," in that, AmerGen did not incorporate the requirements and acceptance limits contained in applicable design documents into the EDG battery service test procedures.

Specifically, the design requirement of the EDG batteries to supply adequate voltage to
the EDG output breakers was not incorporated into the service test load profile for the EDG batteries. This prevented verification within the test of the capability of the batteries to close the output breakers which is a design requirement during events with a postulated loss-of-offsite power. AmerGen entered the issue into their corrective action program to revise the EDG battery sizing calculation and evaluate the appropriate incorporation of the design requirements into the service test procedure.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding has very low safety significance, based on a Phase 1 review of the SDP, documented in NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," because it did not represent the loss of safety function of the EDG batteries. (Section 1R21.2.1.15)
Inspection Report# : 2007006 *(pdf)*

Significance: G May 25, 2007
Identified By: NRC
Item Type: FIN Finding
Inadequate Containment Hardened Vent Valve Accumulator Test Criteria
The team identified a finding of very low safety significance (Green), in that, the licensee did not correctly translate the design of the containment hardened vent valve accumulators into test procedures. Specifically, the acceptance criteria for allowable accumulator pressure drop within the periodic test procedure was not consistent with the original design criteria and did not ensure the assumed design capability of the valves during loss of instrument air events. The valves provide a method of permitting a controlled depressurization of primary containment during severe accident sequences that involve loss of decay heat removal. AmerGen entered this issue into their corrective action program to revise the test criteria to be consistent with the original design of the valve accumulators.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone's objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the team conducted a Phase 1 SDP screening and conservatively determined a more detailed Phase 2 SDP evaluation was

required to assess the safety significance because the finding affected the mitigation system containment vent function. The finding was determined to be of very low safety significance (Green) based upon the Phase 2 SDP evaluation. There was no violation of NRC requirements because the performance deficiency was associated with postulated beyond design basis events. (Section 1R21.2.2.2)
Inspection Report# : 2007006 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Sep 27, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Require State PAR Notifications Within 15 Minutes of Emergency Declaration.
A NRC-identified non-cited violation (NCV) of 10 CFR 50.47(b)(5) and 10 CFR Part 50, Appendix E, Section IV.D.3, was identified for failure of the licensee's state and local notifications procedures to require that the notifications of protective action recommendations (PARs) be made to the state within 15 minutes of the declaration of a General Emergency. The licensee's procedures required that the state be notified of a PAR within 15 minutes of the PAR determination, which would occur at some point after the declaration of the General Emergency. The licensee entered the deficiency with the procedures into their corrective action program.

This finding is greater than minor because it is associated with the Emergency Response Organization Performance attribute and affected the objective of the Emergency Preparedness Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. In accordance with the Emergency Preparedness Significance Determination Process, this finding is of very low safety significance because licensee expectations and training have resulted in the state being notified of PARs within 15 minutes, and the procedure deficiencies did not affect the outcome of protecting the health and safety of the public. (Section 1EP1)
Inspection Report# : 2007502 *(pdf)*

Significance: N/A Jun 08, 2007
Identified By: NRC
Item Type: FIN Finding
NRC Emergency Preparedness Supplemental Inspection 95001 Results
The NRC performed this supplemental inspection to assess AmerGen's evaluation for an issue associated with Oyster Creek operators not recognizing during an August 2005 event that plant parameters met the Emergency Action Level threshold for declaring an Unusual Event and a subsequent Alert. This performance issue was characterized as having low to moderate risk significance (White) in NRC Inspection Report No. 05000219/2005011. The licensee determined that human performance issues related to procedural compliance were a primary causal factor that led to the performance problems identified during the August 2005 event. The licensee's root cause evaluation of the issue was assessed by the NRC in June 2006, during a 95002 supplemental inspection (Report No. 05000219/2006010). During this inspection, the NRC concluded that licensed operators continued to demonstrate weaknesses associated with understanding of management expectations and site requirements for procedure use and adherence. As a result, the White finding was maintained open pending completion of an additional follow-up NRC supplemental inspection to review additional AmerGen corrective actions to improve the licensed operators' knowledge of and adherence to procedural usage requirements.

During this 95001 supplemental inspection, the inspectors determined that AmerGen had performed a comprehensive evaluation of the procedure use and adherence issue. The licensee's evaluation determined that the root cause for the issue to be that Operations Management had failed to provide clear expectations for, and had failed to consistently enforce, standards related to procedure use and adherence to all levels of the site staff. AmerGen implemented corrective actions to ensure that management expectations for procedure use are consistently communicated to, and reinforced with, licensed operators at Oyster Creek. As a result of their root cause determination, AmerGen broadened

their extent-of-condition review to apply the corrective actions regarding management expectations for procedure use across all organizations at the site.

Based on the results of this inspection, the inspectors concluded that AmerGen adequately completed a root cause evaluation of the procedure use performance deficiency associated with this White finding. Additionally, the inspectors concluded that the planned and completed corrective actions appeared reasonable to address the related causes. Given AmerGen's acceptable performance in addressing the procedure use and adherence issue, the White finding associated with this issue will only be considered in assessing plant performance through the second quarter of 2007, in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program." Further implementation of the licensee's corrective actions may be reviewed during future inspections.
Inspection Report# : 2007007 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Significance: G Jun 29, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Identification of Unacceptable Quality Assurance Test Results for Effluent Monitoring
The inspectors identified that quality assurance test results for effluent monitoring of Sr-89 and Sr-90 in the first quarter of 2006 did not meet test acceptance criteria and AmerGen had not evaluated the condition as of April 27, 2007. This finding was determined to be a non-cited violation of technical specification 6.8.1i, "Procedures and Programs." AmerGen's corrective actions involved evaluating the test results to understand their potential impact to the public.

The finding was more than minor because it was associated with the effluent measurement quality control attribute of the public radiation 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 operations. In accordance with Inspection Manual Chapter 0609, Appendix D, "Public Radiation Safety Significance Determination Process," this finding was determined to be of very low safety significance (Green), the issue was not a radioactive material control issue, it involved the effluent release program, there was no impaired ability to assess dose, and public radiation doses did not exceed 10 CFR 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents," values. The performance deficiency had a cross cutting aspect in the area of problem identification and resolution because AmerGen did not identify completely, accurately, and in a timely manner that the test results did not meet their acceptance criteria [P.1(a)].

Inspection Report# : 2007003 *(pdf)*

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.

Miscellaneous

Last modified : June 05, 2008

Oyster Creek
2Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Improper Valve Reassembly Results in Instrument Air Transient
A self-revealing finding was identified when AmerGen improperly reassembled the inlet valve actuator on the 'C & D' instrument air dryers which damaged its o-ring and subsequently resulted in an instrument air transient on March 24, 2008. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions included repairing the air dryer inlet valve by replacing the failed o-ring and providing training on o-ring installation to maintenance personnel.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. In accordance with inspection manual chapter (IMC) 0609.04, "Phase 1 – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance based upon the Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of human performance because training was not adequate to ensure proper reassembly of the valve actuator by maintenance personnel [H.2(b)]. (Section 1R12)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Instrument Air Transient Due to Insufficient Preventive Maintenance on Service Air Compressors
A self revealing finding occurred when the suction air filters to the '1-1' and '1-2' service air compressors became clogged with debris which affected the availability and reliability of the compressors on April 25, 2008. In 2001, AmerGen implemented a modification which involved replacing the service air compressors. During the modification process, AmerGen removed preventive maintenance tasks for the suction air filters without adequate technical justification. AmerGen's corrective actions included replacing the inlet air filters, taking action to create a PM to inspect/replace the air filters and reviewing the extent of condition with respect to similar plant modifications. This finding was of very low safety significance and determined not to be a violation of NRC requirements.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The finding was assessed in accordance with IMC 0609.04, "Phase 1 – Initial Screen and Characterization of Findings." The inspectors performed a Phase 1 screening and determined that a Phase 2 evaluation was required to assess safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. A Region 1 senior reactor analyst (SRA) determined that a Phase 2 evaluation was not suited to assess this event. A Phase 3 analysis was performed by the SRA and the finding was determined to be of very low safety significance. The inspectors did not identify a cross cutting aspect for this finding because the performance deficiency had occurred several years ago and is not indicative of current performance. (Section 1R12)

Inspection Report# : 2008003 *(pdf)*

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Service Water Pump Motor Failure Due to Inadequate Refurbishment Process
A self revealing finding occurred when the '1-1' service water pump motor failed on August 15, 2007 due to an inadequate motor refurbishment by a vendor. AmerGen previously noted a problem with the motor refurbishment process used by the vendor in July 2005, however they did not take actions to address this issue. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions for this issue included replacing the motor and informing the vendor of the issue.

The finding is 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 upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a significance determination process (SDP) Phase 1 screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance (Green) based upon the Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not take appropriate corrective actions to address the issues identified with the quality of vendor practices [P.1(d)]. (Section 1R12)
Inspection Report# : 2007005 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: FIN Finding
Potential Preconditioning of Core Spray Valves Prior to ASME In-service Test
The inspectors identified that AmerGen had scheduled surveillance tests in a sequence that would have resulted in unacceptable preconditioning of valves within the core spray system on May 19, 2008. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions involved reordering the scheduling sequence of the tests and reviewing upcoming (next 60 days) work control schedules to identify potential preconditioning.

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 ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, preconditioning of valves could mask their actual as-found condition and result in an inability to verify their operability, as well as make it difficult to determine whether the valves would perform their intended safety function during an event. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not appropriately coordinate work activities to support long term equipment reliability [H.3(b)]. (Section 1R22)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Diesel Driven Fire Pump Unavailable Due to Improper Testing

A self revealing finding occurred when AmerGen did not properly implement a functional test procedure for the '1-1' diesel driven fire pump on November 7, 2007. Specifically, operations personnel did not accurately measure the speed of the pump while performing the functional test which resulted in the pump being declared inoperable and unavailable for greater than three weeks during troubleshooting by AmerGen personnel. This finding was of very low safety significance and determined to be a non-cited violation (NCV) of technical specification 6.8, "Procedures and Programs." AmerGen's corrective actions included providing additional training to operators to accurately monitor speed of the diesel with a stroboscope and revising the procedure to include vendor guidance for measuring diesel speed.

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 ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors conducted a Phase I SDP screening and determined that the finding was of very low safety significance (Green). The finding was of low safety significance because there was no loss of safety function due to the availability of the redundant diesel driven fire pump. The inspectors also reviewed this issue in accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," to confirm the above results. The finding was determined to be of very low safety significance (green) because it was assigned a low degradation rating due to availability of other fire protection pumps. The performance deficiency had a cross-cutting aspect in the area of human performance because training was not adequate to ensure the proper use of the stroboscope by operations personnel during testing [H.2 (b)]. (Section 4OA2)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 27, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Review the Impact of Site Staffing Changes to the Fire Protection Program
The team identified that in July 2002, AmerGen failed to review a change to personnel resources that would increase the time necessary to complete an NRC approved hot shutdown repair after a fire in the A 480V switchgear room. Specifically, AmerGen eliminated the need for onsite electrical or instrument and controls technician staffing at all times. This finding was determined to be of very low safety significance (Green) and a NCV of Oyster Creek Nuclear Generating Station Facility Operating License condition 2.C.(3) Fire Protection. AmerGen's immediate corrective actions for this issue included assessing current call-in processes to verify the hot shutdown repair would be completed by qualified personnel within the safe shutdown analysis time requirement.

The team determined that this finding was more than minor because it was associated with the external factors attribute (fire) of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, AmerGen did not analyze the reduction in personnel readiness for an adverse impact on implementing a hot shutdown repair to Bus USS 1B2 within the safe shutdown analysis time requirement. This finding was also similar to more than minor example 3.i in NRC Inspection Manual Chapter (IMC) 0612, Power Reactor Inspection Reports, Appendix E, Examples of Minor Issues. The team assessed this finding in accordance with NRC IMC 0609, Appendix F, Fire Protection Significance Determination Process. This finding screened to very low safety significance (Green) in phase 1 of the SDP because it was assigned a low degradation rating. A low degradation rating was assigned because actual emergency response organization call-in and drive-in data demonstrated that the hot shutdown repair would most likely be completed within the safe shutdown analysis time requirement. (Section 1R05.01)

Inspection Report# : 2008008 *(pdf)*

Significance: G Mar 31, 2008
Identified By: NRC
Item Type: FIN Finding
Inadequate Risk Assessment Identified Prior to Commencement of Maintenance
The inspectors identified that AmerGen performed an inadequate risk assessment for a planned, but not yet commenced, maintenance activity on the Bank 6 startup transformer in February 2008; which resulted in an under-estimation of the risk associated with performing the activity. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions for this issue included reassessing the risk for the activity and

discussing this issue with work management personnel.

The finding was more than minor because the risk assessment did not account for the unavailability of a single train of a system that provides a shutdown key safety function. This finding was also similar to more than minor example 7.e in NRC Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," because when the activity was correctly assessed the plant would have been in a higher, licensee-established risk category. In accordance with IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," the inspectors evaluated the significance of this issue and determined that the incremental core damage probability deficit (ICDPD) associated with this activity was less than 1.0 E-6 and noted that the incorrectly assessed maintenance activity did not occur. Therefore, in accordance with Appendix K this finding screened as very low safety significance. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not plan a maintenance activity, consistent with nuclear safety because risk insights were not properly incorporated into the work planning. [H.3(a)] (Section 1R13)
Inspection Report# : 2008002 *(pdf)*

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Degraded Fuel Oil in the 1-1 Fire Diesel Fuel Oil Storage Tank Not Identified
A self revealing finding occurred when AmerGen did not identify a degraded fuel oil condition on the '1-1' diesel driven fire pump in September 2007. This resulted in the pump being unable to maintain adequate discharge pressure on October 1, 2007 during testing due to restricted fuel flow caused by clogged fuel filters. The finding was determined not to be a violation of regulatory requirements. AmerGen's corrective actions included removing the fuel oil sludge from the system; and proposed actions to revise the fuel oil tank cleaning procedure, providing administrative limits for particulate contamination in the chemistry procedure, and briefing chemistry personnel on the importance of properly trending data.

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 ensure the availability, reliability, and capability 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 SDP Phase I screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding involved an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for greater than 24 hours. The finding was determined to be of very low safety significance based upon a Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify an adverse trend in fuel oil particulate which impacted the safety function on the '1-1' diesel driven fire pump [P.1(a)]. (Section 1R12)
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Operations Personnel Did Not Appropriately Implement Reactor Startup Procedure
The inspectors identified that AmerGen did not properly implement procedures during a reactor startup on July 20, 2007. Specifically, operations personnel withdrew source range monitors (SRM) from the core without first ensuring adequate overlap with the intermediate range monitors (IRM) as prescribed by procedures. The finding was of very low safety significance and determined to be a NCV of technical specification 6.8.1, "Procedures and Programs." AmerGen's proposed corrective actions for this issue involve revising the operating procedure and providing training to operations personnel on this issue.

The finding is more than minor because it was associated with the human performance attribute (pre-event) of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a SDP Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety

function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The performance deficiency had a cross-cutting aspect in the area of human performance because operations personnel did not to follow procedures when they continued with the plant startup even though they did not meet the operating procedures requirements [H.4(b)]. (Section 4OA2)
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Evaluation of IRM Channels Prior to Reactor Startup
A self-revealing finding occurred when AmerGen operated in a condition prohibited by technical specifications on July 20, 2007. Specifically, AmerGen did not identify that intermediate range monitor (IRM)-16 was inoperable and ensure that the required number of IRM channels for the reactor protection system were available for a reactor startup. This finding was of very low safety significance and determined to be a NCV of Oyster Creek technical specification 3.1, “Protective Instrumentation.” AmerGen's corrective actions for this issue included replacing IRM 16 detector and developing lessons learned for reviewing operability of IRMs.

The finding is more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a SDP Phase 1 screening in accordance with IMC 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations.” The finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate the operability of IRM-16 prior to a reactor startup as requested [P.1(c)]. (Section 4OA3)
Inspection Report# : 2007005 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded Condition on the Remote Shutdown Panel Not Properly Identified.
The inspectors identified that AmerGen did not properly identify that the remote shutdown panel (RSP) was not capable of performing its design function when the ‘B’ isolation condenser (IC) makeup valve control power indicating status light was not illuminated on June 21, 2007. This finding was of very low safety significance (Green) and determined to be a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action.” AmerGen’s corrective actions included repairing the RSP and discussing this issue with operations personnel on the adequacy of operability evaluations.

The finding was more than minor because it was associated with the protection against external factors (fire and toxic hazard) attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix F, “Fire Protection Significance Determination Process (SDP),” the inspectors conducted a Phase I SDP screening utilizing Figure F.1 in Appendix F. Per the Phase I screening criteria, the finding was assigned the category of “post-fire safe shutdown.” The inspectors assigned a low degradation rating in accordance with Attachment 2 of Appendix F. A low degradation rating was assigned, because procedures existed and operators were trained at operating the ‘B’ IC makeup valve locally; and operators have a significant amount of time to complete the local operation. Therefore, in accordance with Appendix F step 1.3.1, “Qualitative Screening for All Finding Categories,” this finding screened as very low safety significance because the finding was assigned a low degradation rating. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate a problem for operability [P.1.(c)]. (Section 1R15)
Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Repair of a Fire Rated Penetration Seal
The inspectors identified that AmerGen did not properly implement fire protection plan requirements on June 22, 2007. Specifically, AmerGen did not repair fire penetration 762 in accordance with procedures and resulted in an unqualified configuration of sealing materials being installed in the plant. This finding was determined to be a NCV of license condition 2.C(3), "Fire Protection." AmerGen's corrective actions involved evaluating the as-found penetration seal for effectiveness in preventing the spread of a fire and procuring a fire seal qualification test that qualified the installed configuration; and evaluating the process and programs used to repair fire penetration seals in the plant.

The finding was more than minor because it was associated with the external factors (fires) attribute of the mitigating systems cornerstone and affected the objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Apendix F, "Fire Protection Significance Determination Process," the inspectors conducted a Phase I SDP screening utilizing Figure F.1. Per the Phase I screening criteria the finding was assigned the category of "Fire Confinement." The inspectors assigned a "Moderate B" degradation rating to the installed fire penetration seal in accordance with Attachment 2, Table A2.2 of Appendix F, because the installed seal configuration was between 6 and 9 inches and there was no test or evaluation available to qualify its fire rating. Therefore in accordance with Appendix F, step 1.3.2, "Supplemental Screening for Fire confinement Findings," screening criteria 3, this finding screened as very low safety significance because both sides of the wall were protected by a non-degraded automatic water based fire suppression system. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not assure that accurate work packages were available to ensure that a qualified fire penetration seal was installed in the plant [H.2(c)]. (Section 1R19)
Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 28, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Procedure Implementation During Response to a Reactor Feedpump Trip and Reactor Scram
A self-revealing finding was identified when AmerGen personnel did not properly implement procedural guidance during a response to a reactor feedwater pump (RFP) trip and a reactor scram on July 17, 2007. Specifically, the operating crew did not properly reduce reactor power as directed by an abnormal operating procedure; and did not properly implement EOP support procedures which challenged reactor water level control during recovery activities. This finding was determined to be a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." AmerGen's corrective actions included revising the abnormal procedure to provide enhanced instructions, providing all operations personnel remedial training sessions in the simulator on this event, and issuing a standing order communicating operation's management expectations on operator response.

The finding was more than minor because it was associated with the human performance attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was assessed in accordance with IMC 0609, Appendix A, Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors performed a Phase 1 screening and determined that a Phase 2 evaluation was required to assess safety significance because the failure to properly implement procedure guidance in response to and during the event affected both the initiating and mitigating cornerstones. A Region 1 senior reactor analyst (SRA) determined that a Phase 2 evaluation was not suited to assess this event. A Phase 3 analysis was performed by the SRA and the finding was determined to be of very low safety significance. The performance deficiency had a cross-cutting aspect in the area of human performance because the operating crew did not follow procedures during their response to the event [H.4(b)]. (Section 4OA3)
Inspection Report# : 2007004 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Sep 27, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Require State PAR Notifications Within 15 Minutes of Emergency Declaration.
A NRC-identified non-cited violation (NCV) of 10 CFR 50.47(b)(5) and 10 CFR Part 50, Appendix E, Section IV.D.3, was identified for failure of the licensee's state and local notifications procedures to require that the notifications of protective action recommendations (PARs) be made to the state within 15 minutes of the declaration of a General Emergency. The licensee's procedures required that the state be notified of a PAR within 15 minutes of the PAR determination, which would occur at some point after the declaration of the General Emergency. The licensee entered the deficiency with the procedures into their corrective action program.

This finding is greater than minor because it is associated with the Emergency Response Organization Performance attribute and affected the objective of the Emergency Preparedness Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. In accordance with the Emergency Preparedness Significance Determination Process, this finding is of very low safety significance because licensee expectations and training have resulted in the state being notified of PARs within 15 minutes, and the procedure deficiencies did not affect the outcome of protecting the health and safety of the public. (Section 1EP1)
Inspection Report# : 2007502 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : August 29, 2008

Oyster Creek
3Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Improper Valve Reassembly Results in Instrument Air Transient
A self-revealing finding was identified when AmerGen improperly reassembled the inlet valve actuator on the 'C & D' instrument air dryers which damaged its o-ring and subsequently resulted in an instrument air transient on March 24, 2008. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions included repairing the air dryer inlet valve by replacing the failed o-ring and providing training on o-ring installation to maintenance personnel.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. In accordance with inspection manual chapter (IMC) 0609.04, "Phase 1 – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance based upon the Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of human performance because training was not adequate to ensure proper reassembly of the valve actuator by maintenance personnel [H.2(b)]. (Section 1R12)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Instrument Air Transient Due to Insufficient Preventive Maintenance on Service Air Compressors
A self revealing finding occurred when the suction air filters to the '1-1' and '1-2' service air compressors became clogged with debris which affected the availability and reliability of the compressors on April 25, 2008. In 2001, AmerGen implemented a modification which involved replacing the service air compressors. During the modification process, AmerGen removed preventive maintenance tasks for the suction air filters without adequate technical justification. AmerGen's corrective actions included replacing the inlet air filters, taking action to create a PM to inspect/replace the air filters and reviewing the extent of condition with respect to similar plant modifications. This finding was of very low safety significance and determined not to be a violation of NRC requirements.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The finding was assessed in accordance with IMC 0609.04, "Phase 1 – Initial Screen and Characterization of Findings." The inspectors performed a Phase 1 screening and determined that a Phase 2 evaluation was required to assess safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. A Region 1 senior reactor analyst (SRA) determined that a Phase 2 evaluation was not suited to assess this event. A Phase 3 analysis was performed by the SRA and the finding was determined to be of very low safety significance. The inspectors did not identify a cross cutting aspect for this finding because the performance deficiency had occurred several years ago and is not indicative of current performance. (Section 1R12)

Inspection Report# : 2008003 *(pdf)*

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Service Water Pump Motor Failure Due to Inadequate Refurbishment Process
A self revealing finding occurred when the '1-1' service water pump motor failed on August 15, 2007 due to an inadequate motor refurbishment by a vendor. AmerGen previously noted a problem with the motor refurbishment process used by the vendor in July 2005, however they did not take actions to address this issue. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions for this issue included replacing the motor and informing the vendor of the issue.

The finding is 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 upset plant stability and challenge critical safety functions during

shutdown as well as power operations. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” the inspectors conducted a significance determination process (SDP) Phase 1 screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance (Green) based upon the Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not take appropriate corrective actions to address the issues identified with the quality of vendor practices [P.1(d)]. (Section 1R12)
Inspection Report# : 2007005 *(pdf)*

Mitigating Systems

Significance: G Sep 29, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Scaffold Installation Procedure Not Properly Implemented
Green. The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” because AmerGen did not properly implement scaffolding control procedural requirements on August 11, 2008. Specifically, AmerGen did not perform engineering evaluations for scaffolding constructed within the minimum allowed distance of safety-related equipment to determine its acceptability. AmerGen’s corrective actions included: modifying or removing scaffold, conducting a briefing on this issue to all scaffold builders and supervisors, and scheduling a second brief for scaffold builders who arrive at Oyster Creek prior to the upcoming refueling outage.

This finding was more than minor because it was associated with the external factors attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was also similar to example 4.a in NRC Inspection Manual Chapter (IMC) 0612, “Power Reactor Inspection Reports, “ Appendix E, “Examples of Minor Issues,” because AmerGen routinely did not perform evaluations for scaffolds constructed within the minimum allowed distance of safety related equipment. In accordance with IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not follow procedures and obtain engineering evaluations for scaffold that did not meet the requirements contained in procedures for scaffold installation in the plant [H.4(b)]. (Section 1R15)

Inspection Report# : 2008004 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: FIN Finding
Potential Preconditioning of Core Spray Valves Prior to ASME In-service Test
The inspectors identified that AmerGen had scheduled surveillance tests in a sequence that would have resulted in unacceptable preconditioning of valves within the core spray system on May 19, 2008. This finding was determined not to be a violation of NRC requirements. AmerGen’s corrective actions involved reordering the scheduling sequence of the tests and reviewing upcoming (next 60 days) work control schedules to identify potential preconditioning.

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 ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, preconditioning of valves could mask their actual as-found condition and result in an inability to verify their operability, as well as make it difficult to determine whether the valves would perform their intended safety function during an event. In accordance with IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not appropriately coordinate work activities to support long term equipment reliability [H.3(b)]. (Section 1R22)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Diesel Driven Fire Pump Unavailable Due to Improper Testing
A self revealing finding occurred when AmerGen did not properly implement a functional test procedure for the '1-1' diesel driven fire pump on November 7, 2007. Specifically, operations personnel did not accurately measure the speed of the pump while performing the functional test which resulted in the pump being declared inoperable and unavailable for greater than three weeks during troubleshooting by AmerGen personnel. This finding was of very low safety significance and determined to be a non-cited violation (NCV) of technical specification 6.8, "Procedures and Programs." AmerGen's corrective actions included providing additional training to operators to accurately monitor speed of the diesel with a stroboscope and revising the procedure to include vendor guidance for measuring diesel speed.

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 ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors conducted a Phase I SDP screening and determined that the finding was of very low safety significance (Green). The finding was of low safety significance because there was no loss of safety function due to the availability of the redundant diesel driven fire pump. The inspectors also reviewed this issue in accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," to confirm the above results. The finding was determined to be of very low safety significance (green) because it was assigned a low degradation rating due to availability of other fire protection pumps. The performance deficiency had a cross-cutting aspect in the area of human performance because training was not adequate to ensure the proper use of the stroboscope by operations personnel during testing [H.2 (b)]. (Section 4OA2)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 27, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Review the Impact of Site Staffing Changes to the Fire Protection Program
The team identified that in July 2002, AmerGen failed to review a change to personnel resources that would increase the time necessary to complete an NRC approved hot shutdown repair after a fire in the A 480V switchgear room. Specifically, AmerGen eliminated the need for onsite electrical or instrument and controls technician staffing at all times. This finding was determined to be of very low safety significance (Green) and a NCV of Oyster Creek Nuclear Generating Station Facility Operating License condition 2.C.(3) Fire Protection. AmerGen's immediate corrective actions for this issue included assessing current call-in processes to verify the hot shutdown repair would be completed by qualified personnel within the safe shutdown analysis time requirement.

The team determined that this finding was more than minor because it was associated with the external factors attribute (fire) of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, AmerGen did not analyze the reduction in personnel readiness for an adverse impact on implementing a hot shutdown repair to Bus USS 1B2 within the safe shutdown analysis time requirement. This finding was also similar to more than minor example 3.i in NRC Inspection Manual Chapter (IMC) 0612, Power Reactor Inspection Reports, Appendix E, Examples of Minor Issues. The team assessed this finding in accordance with NRC IMC 0609, Appendix F, Fire Protection Significance Determination Process. This finding screened to very low safety significance (Green) in phase 1 of the SDP because it was assigned a low degradation rating. A low degradation rating was assigned because actual emergency response organization call-in and drive-in data demonstrated that the hot shutdown repair would most likely be completed within the safe shutdown analysis time requirement. (Section 1R05.01)

Inspection Report# : 2008008 *(pdf)*

Significance: G Mar 31, 2008
Identified By: NRC
Item Type: FIN Finding
Inadequate Risk Assessment Identified Prior to Commencement of Maintenance
The inspectors identified that AmerGen performed an inadequate risk assessment for a planned, but not yet commenced, maintenance activity on the Bank 6 startup transformer in February 2008; which resulted in an under-estimation of the risk associated with performing the activity. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions for this issue included reassessing the risk for the activity and discussing this issue with work management personnel.

The finding was more than minor because the risk assessment did not account for the unavailability of a single train of a system that provides a shutdown key safety function. This finding was also similar to more than minor example 7.e in NRC Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," because when the activity was correctly assessed the plant would have been in a higher, licensee-established risk category. In accordance with IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," the inspectors evaluated the significance of this issue and determined that the incremental core damage probability deficit (ICDPD) associated with this activity was less than 1.0 E-6 and noted that the incorrectly assessed maintenance activity did not occur. Therefore, in accordance with Appendix K this finding screened as very low safety

significance. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not plan a maintenance activity, consistent with nuclear safety because risk insights were not properly incorporated into the work planning. [H.3(a)] (Section 1R13)
Inspection Report# : 2008002 *(pdf)*

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Degraded Fuel Oil in the 1-1 Fire Diesel Fuel Oil Storage Tank Not Identified
A self revealing finding occurred when AmerGen did not identify a degraded fuel oil condition on the '1-1' diesel driven fire pump in September 2007. This resulted in the pump being unable to maintain adequate discharge pressure on October 1, 2007 during testing due to restricted fuel flow caused by clogged fuel filters. The finding was determined not to be a violation of regulatory requirements. AmerGen's corrective actions included removing the fuel oil sludge from the system; and proposed actions to revise the fuel oil tank cleaning procedure, providing administrative limits for particulate contamination in the chemistry procedure, and briefing chemistry personnel on the importance of properly trending data.

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 ensure the availability, reliability, and capability 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 SDP Phase I screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding involved an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for greater than 24 hours. The finding was determined to be of very low safety significance based upon a Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not identify an adverse trend in fuel oil particulate which impacted the safety function on the '1-1' diesel driven fire pump [P.1(a)]. (Section 1R12)
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Operations Personnel Did Not Appropriately Implement Reactor Startup Procedure
The inspectors identified that AmerGen did not properly implement procedures during a reactor startup on July 20, 2007. Specifically, operations personnel withdrew source range monitors (SRM) from the core without first ensuring adequate overlap with the intermediate range monitors (IRM) as prescribed by procedures. The finding was of very low safety significance and determined to be a NCV of technical specification 6.8.1, "Procedures and Programs." AmerGen's proposed corrective actions for this issue involve revising the operating procedure and providing training to operations personnel on this issue.

The finding is more than minor because it was associated with the human performance attribute (pre-event) of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a SDP Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The performance deficiency had a cross-cutting aspect in the area of human performance because operations personnel did not to follow procedures when they continued with the plant startup even though they did not meet the operating procedures requirements [H.4(b)]. (Section 4OA2)
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Evaluation of IRM Channels Prior to Reactor Startup
A self-revealing finding occurred when AmerGen operated in a condition prohibited by technical specifications on July 20, 2007. Specifically, AmerGen did not identify that intermediate range monitor (IRM)-16 was inoperable and ensure that the required number of IRM channels for the reactor protection system were available for a reactor startup. This finding was of very low safety significance and determined to be a NCV of Oyster Creek technical specification 3.1, "Protective Instrumentation." AmerGen's corrective actions for this issue included replacing IRM 16 detector and developing lessons learned for reviewing operability of IRMs.

The finding is more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a SDP Phase 1 screening in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater

than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution because AmerGen did not thoroughly evaluate the operability of IRM-16 prior to a reactor startup as requested [P.1(c)]. (Section 4OA3)
Inspection Report# : 2007005 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : November 26, 2008

Oyster Creek
4Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Nov 07, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Conduct of Maintenance Procedure Not Properly Implemented
A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," occurred when Exelon did not perform an adequate self-check and did not properly use test equipment during 480 VAC breaker maintenance on November 7. Specifically, during the maintenance, a human performance error occurred causing a phase to phase fault and an arc flash, and resulted in the loss of safety related equipment and an automatic halon system actuation in the 480 VAC room. In response, Exelon entered this issue into the corrective action program and implemented actions to address work practice deficiencies.

The finding is more than minor because it is associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Appendix G, "Shutdown Operations Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process," the finding was determined to have very low safety significance (Green) because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not affect the licensee's ability to terminate a leak path or add inventory to the RCS, or degrade the licensee's ability to recover decay heat removal in the event it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance because Exelon did not properly implement human error prevention techniques, such as self and peer checking [H.4(a)]. (Section 1R12)

Inspection Report# : 2008005 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Improper Valve Reassembly Results in Instrument Air Transient
A self-revealing finding was identified when AmerGen improperly reassembled the inlet valve actuator on the 'C & D' instrument air dryers which damaged its o-ring and subsequently resulted in an instrument air transient on March 24, 2008. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions included repairing the air dryer inlet valve by replacing the failed o-ring and providing training on o-ring installation to maintenance personnel.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. In accordance with inspection manual chapter (IMC) 0609.04, "Phase 1 – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance based upon the Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of human performance because training was not adequate to ensure proper reassembly of the valve actuator by maintenance personnel [H.2(b)]. (Section 1R12)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Instrument Air Transient Due to Insufficient Preventive Maintenance on Service Air Compressors
A self revealing finding occurred when the suction air filters to the '1-1' and '1-2' service air compressors became clogged with debris which affected the availability and reliability of the compressors on April 25, 2008. In 2001, AmerGen implemented a modification which involved replacing the service air compressors. During the modification process, AmerGen removed preventive maintenance tasks for the suction air filters without adequate technical justification. AmerGen's corrective actions included replacing the inlet air filters, taking action to create a PM to inspect/replace the air filters and reviewing the extent of condition with respect to similar plant modifications. This finding was of very low safety significance and determined not to be a violation of NRC requirements.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The finding was assessed in accordance with IMC 0609.04, "Phase 1 – Initial Screen and Characterization of Findings." The inspectors performed a Phase 1 screening and determined that a Phase 2 evaluation was required to assess safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. A Region 1 senior reactor analyst (SRA) determined that a Phase 2 evaluation was not suited to assess this event. A Phase 3 analysis was performed by the SRA and the finding was determined to be of very low safety significance. The inspectors did not identify a cross cutting aspect for this finding because the performance deficiency had occurred several years ago and is not indicative of current performance. (Section 1R12)

Inspection Report# : 2008003 *(pdf)*

Mitigating Systems

Significance: G Sep 29, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Scaffold Installation Procedure Not Properly Implemented
Green. The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because AmerGen did not properly implement scaffolding control procedural requirements on August 11, 2008. Specifically, AmerGen did not perform engineering evaluations for scaffolding constructed within the minimum allowed distance of safety-related equipment to determine its acceptability. AmerGen's corrective actions included: modifying or removing scaffold, conducting a briefing on this issue to all scaffold builders and supervisors, and scheduling a second brief for scaffold builders who arrive at Oyster Creek prior to the upcoming refueling outage.

This finding was more than minor because it was associated with the external factors attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was also similar to example 4.a in NRC Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports, " Appendix E, "Examples of Minor Issues," because AmerGen routinely did not perform evaluations for scaffolds constructed within the minimum allowed distance of safety related equipment. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not follow procedures and obtain engineering

evaluations for scaffold that did not meet the requirements contained in procedures for scaffold installation in the plant [H.4(b)]. (Section 1R15)

Inspection Report# : 2008004 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: FIN Finding
Potential Preconditioning of Core Spray Valves Prior to ASME In-service Test
The inspectors identified that AmerGen had scheduled surveillance tests in a sequence that would have resulted in unacceptable preconditioning of valves within the core spray system on May 19, 2008. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions involved reordering the scheduling sequence of the tests and reviewing upcoming (next 60 days) work control schedules to identify potential preconditioning.

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 ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, preconditioning of valves could mask their actual as-found condition and result in an inability to verify their operability, as well as make it difficult to determine whether the valves would perform their intended safety function during an event. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not appropriately coordinate work activities to support long term equipment reliability [H.3(b)]. (Section 1R22)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Diesel Driven Fire Pump Unavailable Due to Improper Testing
A self revealing finding occurred when AmerGen did not properly implement a functional test procedure for the '1-1' diesel driven fire pump on November 7, 2007. Specifically, operations personnel did not accurately measure the speed of the pump while performing the functional test which resulted in the pump being declared inoperable and unavailable for greater than three weeks during troubleshooting by AmerGen personnel. This finding was of very low safety significance and determined to be a non-cited violation (NCV) of technical specification 6.8, "Procedures and Programs." AmerGen's corrective actions included providing additional training to operators to accurately monitor speed of the diesel with a stroboscope and revising the procedure to include vendor guidance for measuring diesel speed.

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 ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors conducted a Phase I SDP screening and determined that the finding was of very low safety significance (Green). The finding was of low safety significance because there was no loss of safety function due to the availability of the redundant diesel driven fire pump. The inspectors also reviewed this issue in accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," to confirm the above results. The finding was determined to be of very low safety significance (green) because it was assigned a low degradation rating due to availability of other fire protection pumps. The performance deficiency had a cross-cutting aspect in the area of human performance because training was not adequate to ensure the proper use of the stroboscope by operations personnel during testing [H.2 (b)]. (Section 4OA2)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 27, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Review the Impact of Site Staffing Changes to the Fire Protection Program
The team identified that in July 2002, AmerGen failed to review a change to personnel resources that would increase the time necessary to complete an NRC approved hot shutdown repair after a fire in the A 480V switchgear room. Specifically, AmerGen eliminated the need for onsite electrical or instrument and controls technician staffing at all times. This finding was determined to be of very low safety significance (Green) and a NCV of Oyster Creek Nuclear Generating Station Facility Operating License condition 2.C.(3) Fire Protection. AmerGen's immediate corrective actions for this issue included assessing current call-in processes to verify the hot shutdown repair would be completed by qualified personnel within the safe shutdown analysis time requirement.

The team determined that this finding was more than minor because it was associated with the external factors attribute (fire) of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, AmerGen did not analyze the reduction in personnel readiness for an adverse impact on implementing a hot shutdown repair to Bus USS 1B2 within the safe shutdown analysis time requirement. This finding was also similar to more than minor example 3.i in NRC Inspection Manual Chapter (IMC) 0612, Power Reactor Inspection Reports, Appendix E, Examples of Minor Issues. The team assessed this finding in accordance with NRC IMC 0609, Appendix F, Fire Protection Significance Determination Process. This finding screened to very low safety significance (Green) in phase 1 of the SDP because it was assigned a low degradation rating. A low degradation rating was assigned because actual emergency response organization call-in and drive-in data demonstrated that the hot shutdown repair would most likely be completed within the safe shutdown analysis time requirement. (Section 1R05.01)

Inspection Report# : 2008008 *(pdf)*

Significance: G Mar 31, 2008
Identified By: NRC
Item Type: FIN Finding
Inadequate Risk Assessment Identified Prior to Commencement of Maintenance
The inspectors identified that AmerGen performed an inadequate risk assessment for a planned, but not yet commenced, maintenance activity on the Bank 6 startup transformer in February 2008; which resulted in an under-estimation of the risk associated with performing the activity. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions for this issue included reassessing the risk for the activity and discussing this issue with work management personnel.

The finding was more than minor because the risk assessment did not account for the unavailability of a single train of a system that provides a shutdown key safety function. This finding was also similar to more than minor example 7.e in NRC Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," because when the activity was correctly assessed the plant would have been in a higher, licensee-established risk category. In accordance with IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," the inspectors evaluated the significance of this issue and determined that the incremental core damage probability deficit (ICDPD) associated with this activity was less than 1.0 E-6 and noted that the incorrectly assessed maintenance activity did not occur. Therefore, in accordance with Appendix K this finding screened as very low safety significance. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not plan a maintenance activity, consistent with nuclear safety because risk insights were not properly incorporated into the work planning. [H.3(a)] (Section 1R13)
Inspection Report# : 2008002 *(pdf)*

Barrier Integrity

Significance: G Nov 06, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Core Alterations Performed Without the Required Configuration of Source Range Nuclear Monitors
The inspectors identified an NCV of Technical Specification 3.9.D "Refueling", when Exelon performed core alterations without the required configuration of operable source range monitors (SRM). Specifically, Exelon installed two fuel assemblies in a reactor quadrant when the required configuration of SRMs was not operable. In response, Exelon entered this issue into the corrective action program and implemented actions to revise the reactor refueling procedure.

The finding is more than minor because it is associated with the configuration control attribute of the barrier integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, during a time of decreased availability of physical barriers (refueling outage), Exelon performed core alterations without the required configuration of operable SRMs. Using Appendix G, "Shutdown Operations Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process," the finding was determined to have very low safety significance (Green) because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not affect the licensee's ability to terminate a leak path or add inventory to the RCS, or degrade the licensee's ability to recover decay heat removal in the event it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance, because Exelon did not ensure that the reactor refueling procedures accurately implemented the neutron monitoring requirements contained in the Technical Specifications [H.2(c)]. (Section 1R20)

Inspection Report# : 2008005 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Significance: N/A Aug 08, 2008
Identified By: NRC

Item Type: FIN Finding

Identification and Resolution of Problems

The inspectors concluded that AmerGen was generally effective in identifying, evaluating and resolving problems. AmerGen personnel identified problems and entered them into the Corrective Action Program (CAP) at a low threshold. The inspectors determined that, in general, AmerGen appropriately screened issues for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues and previous occurrences. Corrective actions for high priority issues were appropriate; however, issues that were forwarded to the work management system (PIMS) for resolution did not consistently receive the same level of rigor and attention that the CAP provided. AmerGen staff exhibited difficulty in following corrective actions through this process and were unable to clearly state how a variety of issues were addressed in PIMS.

AmerGen's audits and focused area self-assessments were generally very thorough and probing. The inspectors concluded that AmerGen adequately identified, reviewed, and applied relevant industry operating experience (OE). Based on interviews and other field observations and discussions, the inspectors concluded that site personnel were willing to raise safety issues and to document them in the CAP.

Inspection Report# : 2008009 *(pdf)*

Last modified : April 07, 2009

Oyster Creek
1Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Nov 07, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Conduct of Maintenance Procedure Not Properly Implemented
A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," occurred when Exelon did not perform an adequate self-check and did not properly use test equipment during 480 VAC breaker maintenance on November 7. Specifically, during the maintenance, a human performance error occurred causing a phase to phase fault and an arc flash, and resulted in the loss of safety related equipment and an automatic halon system actuation in the 480 VAC room. In response, Exelon entered this issue into the corrective action program and implemented actions to address work practice deficiencies.

The finding is more than minor because it is associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Appendix G, "Shutdown Operations Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process," the finding was determined to have very low safety significance (Green) because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not affect the licensee's ability to terminate a leak path or add inventory to the RCS, or degrade the licensee's ability to recover decay heat removal in the event it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance because Exelon did not properly implement human error prevention techniques, such as self and peer checking [H.4(a)]. (Section 1R12)

Inspection Report# : 2008005 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Improper Valve Reassembly Results in Instrument Air Transient
A self-revealing finding was identified when AmerGen improperly reassembled the inlet valve actuator on the 'C & D' instrument air dryers which damaged its o-ring and subsequently resulted in an instrument air transient on March 24, 2008. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions included repairing the air dryer inlet valve by replacing the failed o-ring and providing training on o-ring installation to maintenance personnel.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. In accordance with inspection manual chapter (IMC) 0609.04, "Phase 1 – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The finding was determined to be of very low safety significance based upon the Phase 2 evaluation. The performance deficiency had a cross-cutting aspect in the area of human performance because training was not adequate to ensure proper reassembly of the valve actuator by maintenance personnel [H.2(b)]. (Section 1R12)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Instrument Air Transient Due to Insufficient Preventive Maintenance on Service Air Compressors
A self revealing finding occurred when the suction air filters to the '1-1' and '1-2' service air compressors became clogged with debris which affected the availability and reliability of the compressors on April 25, 2008. In 2001, AmerGen implemented a modification which involved replacing the service air compressors. During the modification process, AmerGen removed preventive maintenance tasks for the suction air filters without adequate technical justification. AmerGen's corrective actions included replacing the inlet air filters, taking action to create a PM to inspect/replace the air filters and reviewing the extent of condition with respect to similar plant modifications. This finding was of very low safety significance and determined not to be a violation of NRC requirements.

The finding was more than minor because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The finding was assessed in accordance with IMC 0609.04, "Phase 1 – Initial Screen and Characterization of Findings." The inspectors performed a Phase 1 screening and determined that a Phase 2 evaluation was required to assess safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. A Region 1 senior reactor analyst (SRA) determined that a Phase 2 evaluation was not suited to assess this event. A Phase 3 analysis was performed by the SRA and the finding was determined to be of very low safety significance. The inspectors did not identify a cross cutting aspect for this finding because the performance deficiency had occurred several years ago and is not indicative of current performance. (Section 1R12)

Inspection Report# : 2008003 *(pdf)*

Mitigating Systems

Significance: G Sep 29, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Scaffold Installation Procedure Not Properly Implemented
Green. The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because AmerGen did not properly implement scaffolding control procedural requirements on August 11, 2008. Specifically, AmerGen did not perform engineering evaluations for scaffolding constructed within the minimum allowed distance of safety-related equipment to determine its acceptability. AmerGen's corrective actions included: modifying or removing scaffold, conducting a briefing on this issue to all scaffold builders and supervisors, and scheduling a second brief for scaffold builders who arrive at Oyster Creek prior to the upcoming refueling outage.

This finding was more than minor because it was associated with the external factors attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was also similar to example 4.a in NRC Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports, " Appendix E, "Examples of Minor Issues," because AmerGen routinely did not perform evaluations for scaffolds constructed within the minimum allowed distance of safety related equipment. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not follow procedures and obtain engineering

evaluations for scaffold that did not meet the requirements contained in procedures for scaffold installation in the plant [H.4(b)]. (Section 1R15)

Inspection Report# : 2008004 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: FIN Finding
Potential Preconditioning of Core Spray Valves Prior to ASME In-service Test
The inspectors identified that AmerGen had scheduled surveillance tests in a sequence that would have resulted in unacceptable preconditioning of valves within the core spray system on May 19, 2008. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions involved reordering the scheduling sequence of the tests and reviewing upcoming (next 60 days) work control schedules to identify potential preconditioning.

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 ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, preconditioning of valves could mask their actual as-found condition and result in an inability to verify their operability, as well as make it difficult to determine whether the valves would perform their intended safety function during an event. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not appropriately coordinate work activities to support long term equipment reliability [H.3(b)]. (Section 1R22)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Diesel Driven Fire Pump Unavailable Due to Improper Testing
A self revealing finding occurred when AmerGen did not properly implement a functional test procedure for the '1-1' diesel driven fire pump on November 7, 2007. Specifically, operations personnel did not accurately measure the speed of the pump while performing the functional test which resulted in the pump being declared inoperable and unavailable for greater than three weeks during troubleshooting by AmerGen personnel. This finding was of very low safety significance and determined to be a non-cited violation (NCV) of technical specification 6.8, "Procedures and Programs." AmerGen's corrective actions included providing additional training to operators to accurately monitor speed of the diesel with a stroboscope and revising the procedure to include vendor guidance for measuring diesel speed.

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 ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors conducted a Phase I SDP screening and determined that the finding was of very low safety significance (Green). The finding was of low safety significance because there was no loss of safety function due to the availability of the redundant diesel driven fire pump. The inspectors also reviewed this issue in accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," to confirm the above results. The finding was determined to be of very low safety significance (green) because it was assigned a low degradation rating due to availability of other fire protection pumps. The performance deficiency had a cross-cutting aspect in the area of human performance because training was not adequate to ensure the proper use of the stroboscope by operations personnel during testing [H.2 (b)]. (Section 4OA2)

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 27, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Review the Impact of Site Staffing Changes to the Fire Protection Program
The team identified that in July 2002, AmerGen failed to review a change to personnel resources that would increase the time necessary to complete an NRC approved hot shutdown repair after a fire in the A 480V switchgear room. Specifically, AmerGen eliminated the need for onsite electrical or instrument and controls technician staffing at all times. This finding was determined to be of very low safety significance (Green) and a NCV of Oyster Creek Nuclear Generating Station Facility Operating License condition 2.C.(3) Fire Protection. AmerGen's immediate corrective actions for this issue included assessing current call-in processes to verify the hot shutdown repair would be completed by qualified personnel within the safe shutdown analysis time requirement.

The team determined that this finding was more than minor because it was associated with the external factors attribute (fire) of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, AmerGen did not analyze the reduction in personnel readiness for an adverse impact on implementing a hot shutdown repair to Bus USS 1B2 within the safe shutdown analysis time requirement. This finding was also similar to more than minor example 3.i in NRC Inspection Manual Chapter (IMC) 0612, Power Reactor Inspection Reports, Appendix E, Examples of Minor Issues. The team assessed this finding in accordance with NRC IMC 0609, Appendix F, Fire Protection Significance Determination Process. This finding screened to very low safety significance (Green) in phase 1 of the SDP because it was assigned a low degradation rating. A low degradation rating was assigned because actual emergency response organization call-in and drive-in data demonstrated that the hot shutdown repair would most likely be completed within the safe shutdown analysis time requirement. (Section 1R05.01)

Inspection Report# : 2008008 *(pdf)*

Barrier Integrity

Significance: G Nov 06, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Core Alterations Performed Without the Required Configuration of Source Range Nuclear Monitors
The inspectors identified an NCV of Technical Specification 3.9.D "Refueling", when Exelon performed core alterations without the required configuration of operable source range monitors (SRM). Specifically, Exelon installed two fuel assemblies in a reactor quadrant when the required configuration of SRMs was not operable. In response, Exelon entered this issue into the corrective action program and implemented actions to revise the reactor refueling procedure.

The finding is more than minor because it is associated with the configuration control attribute of the barrier integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, during a time of decreased availability of physical barriers (refueling outage), Exelon performed core alterations without the required configuration of operable SRMs. Using Appendix G, "Shutdown Operations Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process," the finding was determined to have very low safety significance (Green) because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not affect the licensee's ability to terminate a leak path or add inventory to the RCS, or degrade the licensee's ability to recover decay heat removal in the event it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance, because Exelon did not ensure that the reactor refueling procedures accurately implemented the neutron monitoring requirements contained in the Technical Specifications [H.2(c)]. (Section 1R20)

Inspection Report# : 2008005 *(pdf)*

Emergency Preparedness

Significance: G Mar 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure of the Oyster Creek RAGEMS to Meet the Requirements of the Emergency Plan
The inspectors identified a non-cited violation (NCV) of 10CFR50.54(q), "Conditions of Licenses," because Exelon did not properly maintain the conditions of the Oyster Creek Emergency Plan. Specifically, Exelon did not implement timely corrective or compensatory actions when the radioactive gas effluent monitoring system (RAGEMS) automatic sampling system was taken out of service from November 2006 through March 2009. Exelon's corrective actions included replacing solenoid valves in the automatic sampling system and placing the automatic system back in service.

The finding was more than minor because it affected the Emergency Response Organization Performance attribute of the Emergency Preparedness (EP) Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the public health and safety of the public in the event of a radiological emergency. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, "Emergency Preparedness Significance Determination Process," the inspectors determined the finding to be of very low safety significance (Green). Specifically, the inspectors utilized IMC 0609, Appendix B, Section 4.9 and Sheet 1, "Failure to Comply," to determine that the failure to satisfy 10 CFR 50.47(b)(9) was a risk-significant planning standard (RSPS) problem; but it was not a RSPS functional failure of the Oyster Creek dose assessment process. Because a time-motion study concluded that a manual iodine and particulate sample could have been obtained under accident conditions without exceeding regulatory dose limits, the inspectors determined that the RSPS function had not been degraded and the failure of the automatic sampling system ultimately would not have affected the outcome of protecting the health and safety of the public. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, because Exelon did not take appropriate corrective actions in a timely manner commensurate with its safety significance and complexity. Specifically, the RAGEMS sampling system was not able to satisfy the functions required by the Oyster Creek Emergency Plan for over two years before Exelon took adequate steps to initiate corrective actions [P.1(d)]. (Section 4OA2)

Inspection Report# : 2009002 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Significance: N/A Aug 08, 2008
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The inspectors concluded that AmerGen was generally effective in identifying, evaluating and resolving problems. AmerGen personnel identified problems and entered them into the Corrective Action Program (CAP) at a low threshold. The inspectors determined that, in general, AmerGen appropriately screened issues for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues and previous occurrences. Corrective actions for high priority issues were appropriate; however, issues that were forwarded to the work management system (PIMS) for resolution did not consistently receive the same level of rigor and attention that the CAP provided. AmerGen staff exhibited difficulty in following corrective actions through this process and were unable to clearly state how a variety of issues were addressed in PIMS.

AmerGen's audits and focused area self-assessments were generally very thorough and probing. The inspectors concluded that AmerGen adequately identified, reviewed, and applied relevant industry operating experience (OE). Based on interviews and other field observations and discussions, the inspectors concluded that site personnel were willing to raise safety issues and to document them in the CAP.

Inspection Report# : 2008009 *(pdf)*

Last modified : May 28, 2009

Oyster Creek
2Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Evaluation Results In Instrument Air Transient
A self revealing finding occurred when Exelon did not adequately evaluate the impact of water which had entered the service air system in December 2008 which resulted in an accumulation of failed desiccant and corrosion products in the 'C&D' instrument air dryer purge valve. This caused the purge valve to seize in the open position and an instrument air transient on April 5. This finding was determined not to be a violation of NRC requirements. Exelon's corrective actions included replacing the desiccant, repairing the air dryer purge valve and installing it in its proper orientation. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the configuration control attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The inspectors determined that the finding was of very low safety significance (Green) using Table 2, "Initiators and Dependency Table for Oyster Creek Nuclear Generating Station," and Table 3.4, "SDP Worksheet for Oyster Creek Nuclear Generating Station – Loss of Instrument Air (LOIA)," in the Risk-Informed Inspection Notebook for Oyster Creek Nuclear Generating Station. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, corrective action program [IMC 0305, Aspect P.1(c)], because Exelon did not fully evaluate the effect of the failure of the #3 air compressor after cooler to include the potential of water intrusion into the service air system.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Ineffective Use of Operating Experience on Main Power Transformer Cooling System
A self revealing finding occurred when Exelon did not adequately evaluate operating experience (OE) regarding transformer cooling issues. Specifically, Exelon did not identify and correct a single point vulnerability (SPV) on the main transformers cooling system control circuitry. This resulted in a manual reactor scram in April 2009 when the 'M1A' main power transformer lost all cooling and the cooling system could not be restored. This finding was determined not to be a violation of NRC requirements. Exelon's corrective actions included modifying the cooling system control circuitry on the 'M1A' and 'M1B' main power transformer to address the SPV. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, operating experience [IMC 0305, Aspect P.2(a)], because Exelon did not evaluate relevant internal and external OE to identify a SPV in the transformer

cooling system.

Inspection Report# : 2009003 *(pdf)*

Significance: G Dec 31, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Conduct of Maintenance Procedure Not Properly Implemented
A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," occurred when Exelon did not perform an adequate self-check and did not properly use test equipment during 480 VAC breaker maintenance on November 7. Specifically, during the maintenance, a human performance error occurred causing a phase to phase fault and an arc flash, and resulted in the loss of safety related equipment and an automatic halon system actuation in the 480 VAC room. In response, Exelon entered this issue into the corrective action program and implemented actions to address work practice deficiencies.

The finding is more than minor because it is associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Appendix G, "Shutdown Operations Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process," the finding was determined to have very low safety significance (Green) because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not affect the licensee's ability to terminate a leak path or add inventory to the RCS, or degrade the licensee's ability to recover decay heat removal in the event it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance because Exelon did not properly implement human error prevention techniques, such as self and peer checking [H.4(a)]. (Section 1R12)

Inspection Report# : 2008005 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Medium Voltage Cables Maintained Submerged for Extended Period of Time
The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon has not implemented effective actions to minimize water accumulation and submergence of medium voltage cables contained in the turbine building closed cooling water (TBCCW) heat exchanger pit as recommended by their cable conditioning monitoring program. Exelon's corrective actions included revising equipment operator instructions to direct them to ensure that cables were not maintained submerged. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, operating experience [IMC 0305, Aspect P.2(b)], because Exelon did not implement and institutionalize operating experience through changes to station processes, procedures, and equipment. Specifically, Exelon did not change operations instructions or plant equipment to better monitor and remediate the presence of water in the TBCCW heat exchanger pit to minimize the submergence of medium voltage cables as recommended by internal and external operating experience.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Solder Joint Causes Safety Related Station Battery Charger Failure
A self revealing NCV of Oyster Creek Technical Specifications 6.8.1, "Procedures and Programs," occurred when Exelon did not properly implement maintenance instructions and perform adequate soldering on the 'C2' battery charger. This resulted in a wire connected to the power thyristor control module to come loose during operation which caused the battery charger to fail on April 13. Exelon's corrective actions included repairing the 'C2 battery charger, inspecting the other solder joints accomplished during the maintenance activity, and evaluating the need for additional training for maintenance technicians. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, resources [IMC 0305, Aspect H.2(b)], because the training of personnel was not sufficient to ensure nuclear safety. Specifically, although the initial qualification training provided Exelon personnel with the knowledge to perform proper solder joints, the lack of a continuing training program to maintain proficiency and not performing just in time training prior to an infrequently performed maintenance evolution resulted in the overall training of the maintenance personnel to be insufficient to prevent the performance or identification of defective solder joints.

Inspection Report# : 2009003 *(pdf)*

Significance: SL-IV May 15, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate 10 CFR 50.59 Evaluation for Trunnion Room Door/Secondary Containment Temporary Modification
Severity Level IV. The team identified a Severity Level IV non-cited violation of 10 CFR 50.59, "Changes, Tests, and Experiments," in that, Exelon did not obtain a license amendment for a change in the facility that involved a change to the technical specifications (TS). Specifically, Exelon implemented a temporary modification that changed the secondary containment boundary, but was prohibited by TS requirements, without first obtaining the necessary license amendment. In response, Exelon entered the issue into the corrective action program for evaluation. Current compliance with TS was not challenged since the temporary modification was restored as of November 15, 2008.

The violation is more than minor because the change that required the 10 CFR 50.59 evaluation would have required NRC review and approval prior to implementation. Because this was a violation of 10 CFR 50.59, it was considered to be a violation that potentially impedes or impacts the regulatory process. Therefore, this violation was evaluated using the traditional enforcement process. Comparing this item to the examples in NUREG 1600 (Enforcement Policy), Supplement I, this finding is similar to Item D.5, "Violations of 10 CFR 50.59 that result in conditions evaluated as having very low safety significance (i.e., Green) by the SDP." This is an example of a Severity Level IV violation. The team determined the violation to be of very low safety significance (Green) because it did not adversely impact shutdown mitigation capabilities and did not result in a loss of control.

This finding has a cross-cutting aspect in the area of Human Performance, Decision-Making Component, because Exelon did not use conservative assumptions in decision making during the safety evaluation performance and review. Specifically, Exelon did not consider the TS requirements and UFSAR and TS bases when performing and reviewing a safety evaluation that permitted a configuration that was not authorized by TSs.

Inspection Report# : 2009007 *(pdf)*

Significance: G Sep 30, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Scaffold Installation Procedure Not Properly Implemented
Green. The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because AmerGen did not properly implement scaffolding control procedural requirements on August 11, 2008. Specifically, AmerGen did not perform engineering evaluations for scaffolding constructed within the minimum allowed distance of safety-related equipment to determine its acceptability. AmerGen's corrective actions included: modifying or removing scaffold, conducting a briefing on this issue to all scaffold builders and supervisors, and scheduling a second brief for scaffold builders who arrive at Oyster Creek prior to the upcoming refueling outage.

This finding was more than minor because it was associated with the external factors attribute of the mitigating systems cornerstone and affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was also similar to example 4.a in NRC Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports, " Appendix E, "Examples of Minor Issues," because AmerGen routinely did not perform evaluations for scaffolds constructed within the minimum allowed distance of safety related equipment. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not follow procedures and obtain engineering evaluations for scaffold that did not meet the requirements contained in procedures for scaffold installation in the plant [H.4(b)]. (Section 1R15)

Inspection Report# : 2008004 *(pdf)*

Barrier Integrity

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Conservative Acceptance Criteria Specified In SBGTS Surveillance Procedure
The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," because Exelon did not ensure that the surveillance test procedure utilized for the standby gas treatment system (SBGTS) included appropriate acceptance criteria to determine the maximum allowable differential pressure (dP) for the high efficiency particulate air (HEPA) filters. Exelon's corrective actions included performing a technical evaluation to assess the operability of the SBGTS and revising the surveillance test procedure and control room alarm response procedure. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the procedure quality attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barrier protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, resources [IMC 0305, Aspect H.2(c)], because Exelon did not ensure that accurate procedures were available for the surveillance test. Specifically, the acceptance criteria specified in surveillance test procedure was not the same and was non-conservative to that specified in the Oyster Creek technical specifications.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Adverse Trend on #1 SBGTS Not Identified
A self revealing NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," occurred when Exelon did not identify a degraded condition on the #1SBGTS HEPA filter in March 2009. This resulted in the HEPA filter exceeding the technical specification allowable acceptance criteria for pressure drop across the filter and the SBGTS #1 being declared inoperable in May 2009. Exelon's corrective actions included replacing the HEPA filters, reviewing #2 SBGTS historical performance data, and reviewing the expectations for system monitoring with engineering personnel. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with systems, structures and components (SSC) and barrier performance attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, corrective action program [IMC 0305, Aspect P.1(a)], because Exelon personnel did not identify an issue that potentially impacted nuclear safety. Specifically, Exelon personnel did not identify a degraded trend on the SBGTS #1.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Loss of Secondary Containment Integrity During Maintenance on Reactor Building Roof
A self revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" occurred when Exelon personnel did not properly implement a procedure for the control of secondary containment integrity during maintenance activities when both reactor building roof access airlock hatches were maintained opened at the same time on April 1. Exelon's corrective actions included installing a label on the roof hatch doors which specify control requirements, replacing the door lock with one controlled by operations personnel, and reinforcing with maintenance personnel the requirements for pre-job briefings. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the configuration control attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barrier protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4(a)], because human error prevention techniques were not used commensurate with the risk of the assigned task, such that work activities are performed safely. Specifically, Exelon personnel did not effectively utilize pre-job briefs and self and peer checks to ensure that secondary containment integrity would be maintained during maintenance activities on the reactor building roof.

Inspection Report# : 2009003 *(pdf)*

Significance: G May 15, 2009

Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Control for RBCCW Containment Isolation Valve Modification
Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, “Design Control,” in that Exelon did not ensure the adequacy of a reactor building closed cooling water system containment isolation check valve design. Specifically, Exelon modified the check valve but did not ensure that the replacement valve could meet the existing design basis temperature value. In response, Exelon entered the issue in their corrective action program and evaluated the design temperature of the check valve to assure the valve would function properly during postulated events.

The finding is more than minor because it is associated with the design control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective of
providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The team determined the finding screened as very low safety significance (Green) because it did not represent a degradation of the radiological barrier function provided for the control room, auxiliary building, or spent fuel pool, did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere, did not represent an actual open pathway in the physical integrity of reactor containment, and did not involve an actual reduction in function of hydrogen igniters in the reactor containment.

This finding has a cross-cutting aspect in the area of Human Performance, Work Practices Component, because Exelon did not define and effectively communicate expectations regarding procedural compliance and personnel did not follow procedures. Specifically, Exelon did not comply with procedure CC-AA-102, “Design Input and Configuration Change Impact Screening,” to evaluate the design temperature of the newly installed check valve to ensure that all affected systems can perform their design basis functions. (IMC 0305, Aspect H.4(b))

Inspection Report# : 2009007 *(pdf)*

Significance: G Dec 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Core Alterations Performed Without the Required Configuration of Source Range Nuclear Monitors
The inspectors identified an NCV of Technical Specification 3.9.D “Refueling”, when Exelon performed core alterations without the required configuration of operable source range monitors (SRM). Specifically, Exelon installed two fuel assemblies in a reactor quadrant when the required configuration of SRMs was not operable. In response, Exelon entered this issue into the corrective action program and implemented actions to revise the reactor refueling procedure.

The finding is more than minor because it is associated with the configuration control attribute of the barrier integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, during a time of decreased availability of physical barriers (refueling outage), Exelon performed core alterations without the required configuration of operable SRMs. Using Appendix G, “Shutdown Operations Significance Determination Process,” of Manual Chapter 0609, “Significance Determination Process,” the finding was determined to have very low safety significance (Green) because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not affect the licensee’s ability to terminate a leak path or add inventory to the RCS, or degrade the licensee’s ability to recover decay heat removal in the event it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance, because Exelon did not ensure that the reactor refueling procedures accurately implemented the neutron monitoring requirements contained in the Technical Specifications [H.2(c)]. (Section 1R20)

Inspection Report# : 2008005 *(pdf)*

Emergency Preparedness

Significance: G Mar 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure of the Oyster Creek RAGEMS to Meet the Requirements of the Emergency Plan
The inspectors identified a non-cited violation (NCV) of 10CFR50.54(q), "Conditions of Licenses," because Exelon did not properly maintain the conditions of the Oyster Creek Emergency Plan. Specifically, Exelon did not implement timely corrective or compensatory actions when the radioactive gas effluent monitoring system (RAGEMS) automatic sampling system was taken out of service from November 2006 through March 2009. Exelon's corrective actions included replacing solenoid valves in the automatic sampling system and placing the automatic system back in service.

The finding was more than minor because it affected the Emergency Response Organization Performance attribute of the Emergency Preparedness (EP) Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the public health and safety of the public in the event of a radiological emergency. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, "Emergency Preparedness Significance Determination Process," the inspectors determined the finding to be of very low safety significance (Green). Specifically, the inspectors utilized IMC 0609, Appendix B, Section 4.9 and Sheet 1, "Failure to Comply," to determine that the failure to satisfy 10 CFR 50.47(b)(9) was a risk-significant planning standard (RSPS) problem; but it was not a RSPS functional failure of the Oyster Creek dose assessment process. Because a time-motion study concluded that a manual iodine and particulate sample could have been obtained under accident conditions without exceeding regulatory dose limits, the inspectors determined that the RSPS function had not been degraded and the failure of the automatic sampling system ultimately would not have affected the outcome of protecting the health and safety of the public. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, because Exelon did not take appropriate corrective actions in a timely manner commensurate with its safety significance and complexity. Specifically, the RAGEMS sampling system was not able to satisfy the functions required by the Oyster Creek Emergency Plan for over two years before Exelon took adequate steps to initiate corrective actions [P.1(d)]. (Section 4OA2)

Inspection Report# : 2009002 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Significance: N/A Aug 08, 2008
Identified By: NRC
Item Type: FIN Finding

Identification and Resolution of Problems
The inspectors concluded that AmerGen was generally effective in identifying, evaluating and resolving problems. AmerGen personnel identified problems and entered them into the Corrective Action Program (CAP) at a low threshold. The inspectors determined that, in general, AmerGen appropriately screened issues for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues and previous occurrences. Corrective actions for high priority issues were appropriate; however, issues that were forwarded to the work management system (PIMS) for resolution did not consistently receive the same level of rigor and attention that the CAP provided. AmerGen staff exhibited difficulty in following corrective actions through this process and were unable to clearly state how a variety of issues were addressed in PIMS.

AmerGen's audits and focused area self-assessments were generally very thorough and probing. The inspectors concluded that AmerGen adequately identified, reviewed, and applied relevant industry operating experience (OE). Based on interviews and other field observations and discussions, the inspectors concluded that site personnel were willing to raise safety issues and to document them in the CAP.

Inspection Report# : 2008009 *(pdf)*

Last modified : August 31, 2009

Oyster Creek
3Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Unexpected power drop when transferring mode of control of recirculation pump
A self-revealing NCV of Oyster Creek Technical Specification 6.8.1, "Procedures and Programs," occurred when Exelon did not properly implement procedures to transfer the "D" reactor recirculation pump from local manual to remote manual control which resulted in an unplanned reduction in reactor power on August 6. Operations personnel misread the scoop tube position indicator on "D" reactor recirculation pump motor generator set and did not properly match it with the speed indicated on the remote controller in the control room as required by the procedure, resulting in a reduction in recirculation flow and a reduction in reactor power. Exelon's corrective actions included restoring "D" reactor recirculation pump speed, replacement of the existing unmarked scoop tube position indicators with numbered position indicators and a revision of the procedure 301.2 "Reactor Recirculation System" to include cautions and additional information on how to read the scoop tube position indicators. This issue has been entered into Exelon's corrective action program.

This finding was more than minor because it was similar to example 4.b in Inspection Manual Chapter 0612, Appendix E and resulted in a power reduction of 3%. Additionally, the finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding affected the initiating events cornerstone and was a transient initiator contributor that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. The performance deficiency had a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4.(a)], because Exelon did not effectively implement human error prevention techniques, such as self and peer checking. Specifically, Exelon did not effectively use peer checking when determining the position of the reactor recirculation pump motor generator set scoop tube and the operators proceeded in the face of uncertainty when faced with poorly marked scoop tube position indicators. (Section 4OA3)

Inspection Report# : 2009004 *(pdf)*

Significance: G Aug 13, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct a Degraded Condition Leading to #1 EDG Inability to Perform Its Safety Function
The NRC identified a finding of very low safety significance (Green) that involved a non-cited violation (NCV) of 10 CFR50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not identify and correct a degraded condition which resulted in subsequent inoperablility that would have prevented the #1 emergency diesel generator (EDG) from automatically performing its safety function. Specifically, the troubleshooting activity following the July 12, 2009, event, conducted prior to restart on July 15, 2009, did not identify the degraded operation of Generator Breaker Close (GBC) relay contacts. Continued degradation of these relay contacts subsequently resulted in the #1 EDG output breaker not closing during surveillance testing on August 3, 2009. The team found that Exelon replaced the GBC relay and its base and conducted an adequate post-maintenance test, returning the #1 EDG to an operable condition on August 5, 2009. Exelon entered this issue into the corrective action program.

The finding was more than minor because it was associated with the equipment reliability attribute of the Mitigating Cornerstone and it adversely affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A Phase 3 SDP analysis determined that the finding was of very low safety significance (Green), during the 16 day exposure period, in that there was a reasonable probability that operators would have successfully locally closed the output breaker. This finding had a cross-cutting aspect in the area of human performance, decision making [IMC 0305, Aspect H.1(a)], because the safety-significant and risk-significant decisions concerning the #1 EDG were not completed in a systematic process to ensure safety is maintained.
Inspection Report# : 2009009 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Evaluation Results In Instrument Air Transient
A self revealing finding occurred when Exelon did not adequately evaluate the impact of water which had entered the service air system in December 2008 which resulted in an accumulation of failed desiccant and corrosion products in the 'C&D' instrument air dryer purge valve. This caused the purge valve to seize in the open position and an instrument air transient on April 5. This finding was determined not to be a violation of NRC requirements. Exelon's corrective actions included replacing the desiccant, repairing the air dryer purge valve and installing it in its proper orientation. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the configuration control attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The inspectors determined that the finding was of very low safety significance (Green) using Table 2, "Initiators and Dependency Table for Oyster Creek Nuclear Generating Station," and Table 3.4, "SDP Worksheet for Oyster Creek Nuclear Generating Station – Loss of Instrument Air (LOIA)," in the Risk-Informed Inspection Notebook for Oyster Creek Nuclear Generating Station. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, corrective action program [IMC 0305, Aspect P.1(c)], because Exelon did not fully evaluate the effect of the failure of the #3 air compressor after cooler to include the potential of water intrusion into the service air system.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Ineffective Use of Operating Experience on Main Power Transformer Cooling System
A self revealing finding occurred when Exelon did not adequately evaluate operating experience (OE) regarding transformer cooling issues. Specifically, Exelon did not identify and correct a single point vulnerability (SPV) on the main transformers cooling system control circuitry. This resulted in a manual reactor scram in April 2009 when the 'M1A' main power transformer lost all cooling and the cooling system could not be restored. This finding was determined not to be a violation of NRC requirements. Exelon's corrective actions included modifying the cooling system control circuitry on the 'M1A' and 'M1B' main power transformer to address the SPV. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, operating experience [IMC 0305,

Aspect P.2(a)], because Exelon did not evaluate relevant internal and external OE to identify a SPV in the transformer cooling system.

Inspection Report# : 2009003 *(pdf)*

Significance: G Dec 31, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Conduct of Maintenance Procedure Not Properly Implemented
A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," occurred when Exelon did not perform an adequate self-check and did not properly use test equipment during 480 VAC breaker maintenance on November 7. Specifically, during the maintenance, a human performance error occurred causing a phase to phase fault and an arc flash, and resulted in the loss of safety related equipment and an automatic halon system actuation in the 480 VAC room. In response, Exelon entered this issue into the corrective action program and implemented actions to address work practice deficiencies.

The finding is more than minor because it is associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using Appendix G, "Shutdown Operations Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process," the finding was determined to have very low safety significance (Green) because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not affect the licensee's ability to terminate a leak path or add inventory to the RCS, or degrade the licensee's ability to recover decay heat removal in the event it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance because Exelon did not properly implement human error prevention techniques, such as self and peer checking [H.4(a)]. (Section 1R12)

Inspection Report# : 2008005 *(pdf)*

Mitigating Systems

Significance: G Aug 13, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Control Foreign Material in the Shell Side of the 'B' Isolation Condenser
The NRC identified a self-revealing finding of very low safety significance (Green) that involved an NCV of Oyster Creek Technical Specification 6.8.1, "Procedures and Programs," because Exelon did not adequately implement a safety- related maintenance activity. Specifically, foreign material exclusion (FME) control requirements during maintenance in November 2008 were not properly implemented which allowed foreign material to enter the 'B' Isolation Condenser (IC) level instrumentation piping. This resulted in the unavailability of the IC due to erratic water level indication during the July 12, 2009 event. The team found that Exelon took adequate corrective actions to restore the 'B' IC' to an operable condition including back-flushing the instrumentation piping, calibrating the instrument, and revising the surveillance procedure to incorporate back-flushing of the instrument piping during surveillances. Exelon entered this issue into their corrective action program.

The finding was more than minor because it was associated with the human performance attribute of the Mitigating Systems Cornerstone and it adversely affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A Phase 3 SDP analysis determined that this finding was of very low safety significance (Green), during the 233 day exposure period, in that there was a reasonable probability that the operators could have successfully used the 'B" IC. The finding was identified to have a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4(c)], because Exelon did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported.

Inspection Report# : 2009009 *(pdf)*

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Medium Voltage Cables Maintained Submerged for Extended Period of Time
The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon has not implemented effective actions to minimize water accumulation and submergence of medium voltage cables contained in the turbine building closed cooling water (TBCCW) heat exchanger pit as recommended by their cable conditioning monitoring program. Exelon's corrective actions included revising equipment operator instructions to direct them to ensure that cables were not maintained submerged. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, operating experience [IMC 0305, Aspect P.2(b)], because Exelon did not implement and institutionalize operating experience through changes to station processes, procedures, and equipment. Specifically, Exelon did not change operations instructions or plant equipment to better monitor and remediate the presence of water in the TBCCW heat exchanger pit to minimize the submergence of medium voltage cables as recommended by internal and external operating experience.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Solder Joint Causes Safety Related Station Battery Charger Failure
A self revealing NCV of Oyster Creek Technical Specifications 6.8.1, "Procedures and Programs," occurred when Exelon did not properly implement maintenance instructions and perform adequate soldering on the 'C2' battery charger. This resulted in a wire connected to the power thyristor control module to come loose during operation which caused the battery charger to fail on April 13. Exelon's corrective actions included repairing the 'C2 battery charger, inspecting the other solder joints accomplished during the maintenance activity, and evaluating the need for additional training for maintenance technicians. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, resources [IMC 0305, Aspect H.2(b)], because the training of personnel was not sufficient to ensure nuclear safety. Specifically, although the initial qualification training provided Exelon personnel with the knowledge to perform proper solder joints, the lack of a continuing training program to maintain proficiency and not performing just in time training prior to an infrequently performed maintenance evolution resulted in the overall training of the maintenance personnel to be insufficient to prevent the performance or identification of defective solder joints.

Inspection Report# : 2009003 *(pdf)*

Significance: SL-IV May 15, 2009
Identified By: NRC
Item Type: NCV NonCited Violation

Inadequate 10 CFR 50.59 Evaluation for Trunnion Room Door/Secondary Containment Temporary Modification
Severity Level IV. The team identified a Severity Level IV non-cited violation of 10 CFR 50.59, "Changes, Tests, and Experiments," in that, Exelon did not obtain a license amendment for a change in the facility that involved a change to the technical specifications (TS). Specifically, Exelon implemented a temporary modification that changed the secondary containment boundary, but was prohibited by TS requirements, without first obtaining the necessary license amendment. In response, Exelon entered the issue into the corrective action program for evaluation. Current compliance with TS was not challenged since the temporary modification was restored as of November 15, 2008.

The violation is more than minor because the change that required the 10 CFR 50.59 evaluation would have required NRC review and approval prior to implementation. Because this was a violation of 10 CFR 50.59, it was considered to be a violation that potentially impedes or impacts the regulatory process. Therefore, this violation was evaluated using the traditional enforcement process. Comparing this item to the examples in NUREG 1600 (Enforcement Policy), Supplement I, this finding is similar to Item D.5, "Violations of 10 CFR 50.59 that result in conditions evaluated as having very low safety significance (i.e., Green) by the SDP." This is an example of a Severity Level IV violation. The team determined the violation to be of very low safety significance (Green) because it did not adversely impact shutdown mitigation capabilities and did not result in a loss of control.

This finding has a cross-cutting aspect in the area of Human Performance, Decision-Making Component, because Exelon did not use conservative assumptions in decision making during the safety evaluation performance and review. Specifically, Exelon did not consider the TS requirements and UFSAR and TS bases when performing and reviewing a safety evaluation that permitted a configuration that was not authorized by TSs.

Inspection Report# : 2009007 *(pdf)*

Barrier Integrity

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Conservative Acceptance Criteria Specified In SBGTS Surveillance Procedure
The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," because Exelon did not ensure that the surveillance test procedure utilized for the standby gas treatment system (SBGTS) included appropriate acceptance criteria to determine the maximum allowable differential pressure (dP) for the high efficiency particulate air (HEPA) filters. Exelon's corrective actions included performing a technical evaluation to assess the operability of the SBGTS and revising the surveillance test procedure and control room alarm response procedure. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the procedure quality attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barrier protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, resources [IMC 0305, Aspect H.2(c)], because Exelon did not ensure that accurate procedures were available for the surveillance test. Specifically, the acceptance criteria specified in surveillance test procedure was not the same and was non-conservative to that specified in the Oyster Creek technical specifications.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation

Adverse Trend on #1 SBGTS Not Identified
A self revealing NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," occurred when Exelon did not identify a degraded condition on the #1SBGTS HEPA filter in March 2009. This resulted in the HEPA filter exceeding the technical specification allowable acceptance criteria for pressure drop across the filter and the SBGTS #1 being declared inoperable in May 2009. Exelon's corrective actions included replacing the HEPA filters, reviewing #2 SBGTS historical performance data, and reviewing the expectations for system monitoring with engineering personnel. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with systems, structures and components (SSC) and barrier performance attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, corrective action program [IMC 0305, Aspect P.1(a)], because Exelon personnel did not identify an issue that potentially impacted nuclear safety. Specifically, Exelon personnel did not identify a degraded trend on the SBGTS #1.

Inspection Report# : 2009003 *(pdf)*

Significance:  Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Loss of Secondary Containment Integrity During Maintenance on Reactor Building Roof
A self revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" occurred when Exelon personnel did not properly implement a procedure for the control of secondary containment integrity during maintenance activities when both reactor building roof access airlock hatches were maintained opened at the same time on April 1. Exelon's corrective actions included installing a label on the roof hatch doors which specify control requirements, replacing the door lock with one controlled by operations personnel, and reinforcing with maintenance personnel the requirements for pre-job briefings. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the configuration control attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barrier protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4(a)], because human error prevention techniques were not used commensurate with the risk of the assigned task, such that work activities are performed safely. Specifically, Exelon personnel did not effectively utilize pre-job briefs and self and peer checks to ensure that secondary containment integrity would be maintained during maintenance activities on the reactor building roof.

Inspection Report# : 2009003 *(pdf)*

Significance:  May 15, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Control for RBCCW Containment Isolation Valve Modification
Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that Exelon did not ensure the adequacy of a reactor building closed cooling water system containment isolation check valve design. Specifically, Exelon modified the check valve but did not ensure that the replacement valve could meet the existing design basis temperature value. In response, Exelon entered the issue in their corrective action program and evaluated the design temperature of the check valve to assure

the valve would function properly during postulated events.

The finding is more than minor because it is associated with the design control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective of
providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The team determined the finding screened as very low safety significance (Green) because it did not represent a degradation of the radiological barrier function provided for the control room, auxiliary building, or spent fuel pool, did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere, did not represent an actual open pathway in the physical integrity of reactor containment, and did not involve an actual reduction in function of hydrogen igniters in the reactor containment.

This finding has a cross-cutting aspect in the area of Human Performance, Work Practices Component, because Exelon did not define and effectively communicate expectations regarding procedural compliance and personnel did not follow procedures. Specifically, Exelon did not comply with procedure CC-AA-102, "Design Input and Configuration Change Impact Screening," to evaluate the design temperature of the newly installed check valve to ensure that all affected systems can perform their design basis functions. (IMC 0305, Aspect H.4(b))

Inspection Report# : 2009007 *(pdf)*

Significance: G Dec 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Core Alterations Performed Without the Required Configuration of Source Range Nuclear Monitors
The inspectors identified an NCV of Technical Specification 3.9.D "Refueling", when Exelon performed core alterations without the required configuration of operable source range monitors (SRM). Specifically, Exelon installed two fuel assemblies in a reactor quadrant when the required configuration of SRMs was not operable. In response, Exelon entered this issue into the corrective action program and implemented actions to revise the reactor refueling procedure.

The finding is more than minor because it is associated with the configuration control attribute of the barrier integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, during a time of decreased availability of physical barriers (refueling outage), Exelon performed core alterations without the required configuration of operable SRMs. Using Appendix G, "Shutdown Operations Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process," the finding was determined to have very low safety significance (Green) because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not affect the licensee's ability to terminate a leak path or add inventory to the RCS, or degrade the licensee's ability to recover decay heat removal in the event it was lost. The performance deficiency had a cross-cutting aspect in the area of human performance, because Exelon did not ensure that the reactor refueling procedures accurately implemented the neutron monitoring requirements contained in the Technical Specifications [H.2(c)]. (Section 1R20)

Inspection Report# : 2008005 *(pdf)*

Emergency Preparedness

Significance: G Mar 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure of the Oyster Creek RAGEMS to Meet the Requirements of the Emergency Plan
The inspectors identified a non-cited violation (NCV) of 10CFR50.54(q), "Conditions of Licenses," because Exelon did not properly maintain the conditions of the Oyster Creek Emergency Plan. Specifically, Exelon did not implement timely corrective or compensatory actions when the radioactive gas effluent monitoring system (RAGEMS) automatic sampling system was taken out of service from November 2006 through March 2009. Exelon's corrective actions

included replacing solenoid valves in the automatic sampling system and placing the automatic system back in service.

The finding was more than minor because it affected the Emergency Response Organization Performance attribute of the Emergency Preparedness (EP) Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the public health and safety of the public in the event of a radiological emergency. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, "Emergency Preparedness Significance Determination Process," the inspectors determined the finding to be of very low safety significance (Green). Specifically, the inspectors utilized IMC 0609, Appendix B, Section 4.9 and Sheet 1, "Failure to Comply," to determine that the failure to satisfy 10 CFR 50.47(b)(9) was a risk-significant planning standard (RSPS) problem; but it was not a RSPS functional failure of the Oyster Creek dose assessment process. Because a time-motion study concluded that a manual iodine and particulate sample could have been obtained under accident conditions without exceeding regulatory dose limits, the inspectors determined that the RSPS function had not been degraded and the failure of the automatic sampling system ultimately would not have affected the outcome of protecting the health and safety of the public. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, because Exelon did not take appropriate corrective actions in a timely manner commensurate with its safety significance and complexity. Specifically, the RAGEMS sampling system was not able to satisfy the functions required by the Oyster Creek Emergency Plan for over two years before Exelon took adequate steps to initiate corrective actions [P.1(d)]. (Section 4OA2)

Inspection Report# : 2009002 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : December 10, 2009

Oyster Creek
4Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Unexpected power drop when transferring mode of control of recirculation pump
A self-revealing NCV of Oyster Creek Technical Specification 6.8.1, "Procedures and Programs," occurred when Exelon did not properly implement procedures to transfer the "D" reactor recirculation pump from local manual to remote manual control which resulted in an unplanned reduction in reactor power on August 6. Operations personnel misread the scoop tube position indicator on "D" reactor recirculation pump motor generator set and did not properly match it with the speed indicated on the remote controller in the control room as required by the procedure, resulting in a reduction in recirculation flow and a reduction in reactor power. Exelon's corrective actions included restoring "D" reactor recirculation pump speed, replacement of the existing unmarked scoop tube position indicators with numbered position indicators and a revision of the procedure 301.2 "Reactor Recirculation System" to include cautions and additional information on how to read the scoop tube position indicators. This issue has been entered into Exelon's corrective action program.

This finding was more than minor because it was similar to example 4.b in Inspection Manual Chapter 0612, Appendix E and resulted in a power reduction of 3%. Additionally, the finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding affected the initiating events cornerstone and was a transient initiator contributor that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. The performance deficiency had a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4.(a)], because Exelon did not effectively implement human error prevention techniques, such as self and peer checking. Specifically, Exelon did not effectively use peer checking when determining the position of the reactor recirculation pump motor generator set scoop tube and the operators proceeded in the face of uncertainty when faced with poorly marked scoop tube position indicators. (Section 4OA3)

Inspection Report# : 2009004 *(pdf)*

Significance: G Aug 13, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct a Degraded Condition Leading to #1 EDG Inability to Perform Its Safety Function
The NRC identified a finding of very low safety significance (Green) that involved a non-cited violation (NCV) of 10 CFR50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not identify and correct a degraded condition which resulted in subsequent inoperablility that would have prevented the #1 emergency diesel generator (EDG) from automatically performing its safety function. Specifically, the troubleshooting activity following the July 12, 2009, event, conducted prior to restart on July 15, 2009, did not identify the degraded operation of Generator Breaker Close (GBC) relay contacts. Continued degradation of these relay contacts subsequently resulted in the #1 EDG output breaker not closing during surveillance testing on August 3, 2009. The team found that Exelon replaced the GBC relay and its base and conducted an adequate post-maintenance test, returning the #1 EDG to an operable condition on August 5, 2009. Exelon entered this issue into the corrective action program.

The finding was more than minor because it was associated with the equipment reliability attribute of the Mitigating Cornerstone and it adversely affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A Phase 3 SDP analysis determined that the finding was of very low safety significance (Green), during the 16 day exposure period, in that there was a reasonable probability that operators would have successfully locally closed the output breaker. This finding had a cross-cutting aspect in the area of human performance, decision making [IMC 0305, Aspect H.1(a)], because the safety-significant and risk-significant decisions concerning the #1 EDG were not completed in a systematic process to ensure safety is maintained.
Inspection Report# : 2009009 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Evaluation Results In Instrument Air Transient
A self revealing finding occurred when Exelon did not adequately evaluate the impact of water which had entered the service air system in December 2008 which resulted in an accumulation of failed desiccant and corrosion products in the 'C&D' instrument air dryer purge valve. This caused the purge valve to seize in the open position and an instrument air transient on April 5. This finding was determined not to be a violation of NRC requirements. Exelon's corrective actions included replacing the desiccant, repairing the air dryer purge valve and installing it in its proper orientation. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the configuration control attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The inspectors determined that the finding was of very low safety significance (Green) using Table 2, "Initiators and Dependency Table for Oyster Creek Nuclear Generating Station," and Table 3.4, "SDP Worksheet for Oyster Creek Nuclear Generating Station – Loss of Instrument Air (LOIA)," in the Risk-Informed Inspection Notebook for Oyster Creek Nuclear Generating Station. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, corrective action program [IMC 0305, Aspect P.1(c)], because Exelon did not fully evaluate the effect of the failure of the #3 air compressor after cooler to include the potential of water intrusion into the service air system.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Ineffective Use of Operating Experience on Main Power Transformer Cooling System
A self revealing finding occurred when Exelon did not adequately evaluate operating experience (OE) regarding transformer cooling issues. Specifically, Exelon did not identify and correct a single point vulnerability (SPV) on the main transformers cooling system control circuitry. This resulted in a manual reactor scram in April 2009 when the 'M1A' main power transformer lost all cooling and the cooling system could not be restored. This finding was determined not to be a violation of NRC requirements. Exelon's corrective actions included modifying the cooling system control circuitry on the 'M1A' and 'M1B' main power transformer to address the SPV. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, operating experience [IMC 0305,

Aspect P.2(a)], because Exelon did not evaluate relevant internal and external OE to identify a SPV in the transformer cooling system.

Inspection Report# : 2009003 *(pdf)*

Mitigating Systems

Significance: G Aug 13, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Control Foreign Material in the Shell Side of the 'B' Isolation Condenser
The NRC identified a self-revealing finding of very low safety significance (Green) that involved an NCV of Oyster Creek Technical Specification 6.8.1, “Procedures and Programs,” because Exelon did not adequately implement a safety- related maintenance activity. Specifically, foreign material exclusion (FME) control requirements during maintenance in November 2008 were not properly implemented which allowed foreign material to enter the ‘B’ Isolation Condenser (IC) level instrumentation piping. This resulted in the unavailability of the IC due to erratic water level indication during the July 12, 2009 event. The team found that Exelon took adequate corrective actions to restore the ‘B’ IC’ to an operable condition including back-flushing the instrumentation piping, calibrating the instrument, and revising the surveillance procedure to incorporate back-flushing of the instrument piping during surveillances. Exelon entered this issue into their corrective action program.

The finding was more than minor because it was associated with the human performance attribute of the Mitigating Systems Cornerstone and it adversely affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A Phase 3 SDP analysis determined that this finding was of very low safety significance (Green), during the 233 day exposure period, in that there was a reasonable probability that the operators could have successfully used the ‘B” IC. The finding was identified to have a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4(c)], because Exelon did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported.

Inspection Report# : 2009009 *(pdf)*

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Medium Voltage Cables Maintained Submerged for Extended Period of Time
The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion XVI, ”Corrective Action,” because Exelon has not implemented effective actions to minimize water accumulation and submergence of medium voltage cables contained in the turbine building closed cooling water (TBCCW) heat exchanger pit as recommended by their cable conditioning monitoring program. Exelon’s corrective actions included revising equipment operator instructions to direct them to ensure that cables were not maintained submerged. This issue has been entered into Exelon’s corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), “Issue Screening,” because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04 (Table 4a), “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, operating experience [IMC 0305, Aspect P.2(b)], because Exelon did not implement and institutionalize operating experience through changes to station processes, procedures, and equipment. Specifically, Exelon did not change operations instructions or plant equipment to better monitor and remediate the presence of water in the TBCCW heat exchanger pit to minimize the submergence of medium voltage cables as recommended by internal and external operating

experience.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Solder Joint Causes Safety Related Station Battery Charger Failure
A self revealing NCV of Oyster Creek Technical Specifications 6.8.1, "Procedures and Programs," occurred when Exelon did not properly implement maintenance instructions and perform adequate soldering on the 'C2' battery charger. This resulted in a wire connected to the power thyristor control module to come loose during operation which caused the battery charger to fail on April 13. Exelon's corrective actions included repairing the 'C2 battery charger, inspecting the other solder joints accomplished during the maintenance activity, and evaluating the need for additional training for maintenance technicians. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, resources [IMC 0305, Aspect H.2(b)], because the training of personnel was not sufficient to ensure nuclear safety. Specifically, although the initial qualification training provided Exelon personnel with the knowledge to perform proper solder joints, the lack of a continuing training program to maintain proficiency and not performing just in time training prior to an infrequently performed maintenance evolution resulted in the overall training of the maintenance personnel to be insufficient to prevent the performance or identification of defective solder joints.

Inspection Report# : 2009003 *(pdf)*

Significance: SL-IV May 15, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate 10 CFR 50.59 Evaluation for Trunnion Room Door/Secondary Containment Temporary Modification
Severity Level IV. The team identified a Severity Level IV non-cited violation of 10 CFR 50.59, "Changes, Tests, and Experiments," in that, Exelon did not obtain a license amendment for a change in the facility that involved a change to the technical specifications (TS). Specifically, Exelon implemented a temporary modification that changed the secondary containment boundary, but was prohibited by TS requirements, without first obtaining the necessary license amendment. In response, Exelon entered the issue into the corrective action program for evaluation. Current compliance with TS was not challenged since the temporary modification was restored as of November 15, 2008.

The violation is more than minor because the change that required the 10 CFR 50.59 evaluation would have required NRC review and approval prior to implementation. Because this was a violation of 10 CFR 50.59, it was considered to be a violation that potentially impedes or impacts the regulatory process. Therefore, this violation was evaluated using the traditional enforcement process. Comparing this item to the examples in NUREG 1600 (Enforcement Policy), Supplement I, this finding is similar to Item D.5, "Violations of 10 CFR 50.59 that result in conditions evaluated as having very low safety significance (i.e., Green) by the SDP." This is an example of a Severity Level IV violation. The team determined the violation to be of very low safety significance (Green) because it did not adversely impact shutdown mitigation capabilities and did not result in a loss of control.

This finding has a cross-cutting aspect in the area of Human Performance, Decision-Making Component, because Exelon did not use conservative assumptions in decision making during the safety evaluation performance and review. Specifically, Exelon did not consider the TS requirements and UFSAR and TS bases when performing and reviewing a safety evaluation that permitted a configuration that was not authorized by TSs.

Inspection Report# : 2009007 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Action for the 'B' Spent Fuel Pool Cooling Pump
A self-revealing non-cited violation (NCV) was identified of 10CFR50 Appendix B, Criterion XVI, "Corrective Action" was identified when Exelon did not take timely corrective action to address an identified degrading trend in the performance on the B spent fuel pool cooling pump. Exelon repaired the pump by replacing the impeller and performed a satisfactory in-service test (IST) on December 8, and entered the issue into the corrective action program.

The NCV was not similar to the examples cited in IMC 0612 Appendix E, but the inspectors determined it was more than minor because it was associated with the SSC performance attribute of the barrier integrity cornerstone objective to provide reasonable assurance that the physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the functionality of the spent fuel pool cooling system. The inspectors determined this issue was of very low safety significance (Green) because the issue did not result in a loss of cooling to the spent fuel pool where operator or equipment failures could preclude restoration of cooling prior to pool boiling, did not result from fuel handling errors that caused damage to fuel clad integrity or a dropped assembly, and did not result in a loss of spent fuel pool inventory greater than ten percent of the fuel pool volume. The performance deficiency had a cross-cutting aspect in the area of human performance, work control [H.3(b)] because Exelon did not effectively coordinate work activities by implementing actions to communicate, coordinate and cooperate with each other during activities in which interdepartmental coordination is necessary to assure plant and human performance.
Inspection Report# : 2009005 *(pdf)*

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Conservative Acceptance Criteria Specified In SBGTS Surveillance Procedure
The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," because Exelon did not ensure that the surveillance test procedure utilized for the standby gas treatment system (SBGTS) included appropriate acceptance criteria to determine the maximum allowable differential pressure (dP) for the high efficiency particulate air (HEPA) filters. Exelon's corrective actions included performing a technical evaluation to assess the operability of the SBGTS and revising the surveillance test procedure and control room alarm response procedure. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the procedure quality attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barrier protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, resources [IMC 0305, Aspect H.2(c)], because Exelon did not ensure that accurate procedures were available for the surveillance test. Specifically, the acceptance criteria specified in surveillance test procedure was not the same and was non-conservative to that specified in the Oyster Creek technical specifications.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Adverse Trend on #1 SBGTS Not Identified

A self revealing NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," occurred when Exelon did not identify a degraded condition on the #1SBGTS HEPA filter in March 2009. This resulted in the HEPA filter exceeding the technical specification allowable acceptance criteria for pressure drop across the filter and the SBGTS #1 being declared inoperable in May 2009. Exelon's corrective actions included replacing the HEPA filters, reviewing #2 SBGTS historical performance data, and reviewing the expectations for system monitoring with engineering personnel. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with systems, structures and components (SSC) and barrier performance attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, corrective action program [IMC 0305, Aspect P.1(a)], because Exelon personnel did not identify an issue that potentially impacted nuclear safety. Specifically, Exelon personnel did not identify a degraded trend on the SBGTS #1.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Loss of Secondary Containment Integrity During Maintenance on Reactor Building Roof
A self revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" occurred when Exelon personnel did not properly implement a procedure for the control of secondary containment integrity during maintenance activities when both reactor building roof access airlock hatches were maintained opened at the same time on April 1. Exelon's corrective actions included installing a label on the roof hatch doors which specify control requirements, replacing the door lock with one controlled by operations personnel, and reinforcing with maintenance personnel the requirements for pre-job briefings. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the configuration control attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barrier protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4(a)], because human error prevention techniques were not used commensurate with the risk of the assigned task, such that work activities are performed safely. Specifically, Exelon personnel did not effectively utilize pre-job briefs and self and peer checks to ensure that secondary containment integrity would be maintained during maintenance activities on the reactor building roof.

Inspection Report# : 2009003 *(pdf)*

Significance: G May 15, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Control for RBCCW Containment Isolation Valve Modification
Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that Exelon did not ensure the adequacy of a reactor building closed cooling water system containment isolation check valve design. Specifically, Exelon modified the check valve but did not ensure that the replacement valve could meet the existing design basis temperature value. In response, Exelon entered the issue in their corrective action program and evaluated the design temperature of the check valve to assure the valve would function properly during postulated events.

The finding is more than minor because it is associated with the design control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective of
providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The team determined the finding screened as very low safety significance (Green) because it did not represent a degradation of the radiological barrier function provided for the control room, auxiliary building, or spent fuel pool, did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere, did not represent an actual open pathway in the physical integrity of reactor containment, and did not involve an actual reduction in function of hydrogen igniters in the reactor containment.

This finding has a cross-cutting aspect in the area of Human Performance, Work Practices Component, because Exelon did not define and effectively communicate expectations regarding procedural compliance and personnel did not follow procedures. Specifically, Exelon did not comply with procedure CC-AA-102, "Design Input and Configuration Change Impact Screening," to evaluate the design temperature of the newly installed check valve to ensure that all affected systems can perform their design basis functions. (IMC 0305, Aspect H.4(b))

Inspection Report# : 2009007 *(pdf)*

Emergency Preparedness

Significance: G Mar 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure of the Oyster Creek RAGEMS to Meet the Requirements of the Emergency Plan
The inspectors identified a non-cited violation (NCV) of 10CFR50.54(q), "Conditions of Licenses," because Exelon did not properly maintain the conditions of the Oyster Creek Emergency Plan. Specifically, Exelon did not implement timely corrective or compensatory actions when the radioactive gas effluent monitoring system (RAGEMS) automatic sampling system was taken out of service from November 2006 through March 2009. Exelon's corrective actions included replacing solenoid valves in the automatic sampling system and placing the automatic system back in service.

The finding was more than minor because it affected the Emergency Response Organization Performance attribute of the Emergency Preparedness (EP) Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the public health and safety of the public in the event of a radiological emergency. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, "Emergency Preparedness Significance Determination Process," the inspectors determined the finding to be of very low safety significance (Green). Specifically, the inspectors utilized IMC 0609, Appendix B, Section 4.9 and Sheet 1, "Failure to Comply," to determine that the failure to satisfy 10 CFR 50.47(b)(9) was a risk-significant planning standard (RSPS) problem; but it was not a RSPS functional failure of the Oyster Creek dose assessment process. Because a time-motion study concluded that a manual iodine and particulate sample could have been obtained under accident conditions without exceeding regulatory dose limits, the inspectors determined that the RSPS function had not been degraded and the failure of the automatic sampling system ultimately would not have affected the outcome of protecting the health and safety of the public. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, because Exelon did not take appropriate corrective actions in a timely manner commensurate with its safety significance and complexity. Specifically, the RAGEMS sampling system was not able to satisfy the functions required by the Oyster Creek Emergency Plan for over two years before Exelon took adequate steps to initiate corrective actions [P.1(d)]. (Section 4OA2)

Inspection Report# : 2009002 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : March 01, 2010

Oyster Creek
1Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Unexpected power drop when transferring mode of control of recirculation pump
A self-revealing NCV of Oyster Creek Technical Specification 6.8.1, "Procedures and Programs," occurred when Exelon did not properly implement procedures to transfer the "D" reactor recirculation pump from local manual to remote manual control which resulted in an unplanned reduction in reactor power on August 6. Operations personnel misread the scoop tube position indicator on "D" reactor recirculation pump motor generator set and did not properly match it with the speed indicated on the remote controller in the control room as required by the procedure, resulting in a reduction in recirculation flow and a reduction in reactor power. Exelon's corrective actions included restoring "D" reactor recirculation pump speed, replacement of the existing unmarked scoop tube position indicators with numbered position indicators and a revision of the procedure 301.2 "Reactor Recirculation System" to include cautions and additional information on how to read the scoop tube position indicators. This issue has been entered into Exelon's corrective action program.

This finding was more than minor because it was similar to example 4.b in Inspection Manual Chapter 0612, Appendix E and resulted in a power reduction of 3%. Additionally, the finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding affected the initiating events cornerstone and was a transient initiator contributor that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. The performance deficiency had a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4.(a)], because Exelon did not effectively implement human error prevention techniques, such as self and peer checking. Specifically, Exelon did not effectively use peer checking when determining the position of the reactor recirculation pump motor generator set scoop tube and the operators proceeded in the face of uncertainty when faced with poorly marked scoop tube position indicators. (Section 4OA3)

Inspection Report# : 2009004 *(pdf)*

Significance: G Aug 13, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct a Degraded Condition Leading to #1 EDG Inability to Perform Its Safety Function
The NRC identified a finding of very low safety significance (Green) that involved a non-cited violation (NCV) of 10 CFR50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not identify and correct a degraded condition which resulted in subsequent inoperablility that would have prevented the #1 emergency diesel generator (EDG) from automatically performing its safety function. Specifically, the troubleshooting activity following the July 12, 2009, event, conducted prior to restart on July 15, 2009, did not identify the degraded operation of Generator Breaker Close (GBC) relay contacts. Continued degradation of these relay contacts subsequently resulted in the #1 EDG output breaker not closing during surveillance testing on August 3, 2009. The team found that Exelon replaced the GBC relay and its base and conducted an adequate post-maintenance test, returning the #1 EDG to an operable condition on August 5, 2009. Exelon entered this issue into the corrective action program.

The finding was more than minor because it was associated with the equipment reliability attribute of the Mitigating Cornerstone and it adversely affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A Phase 3 SDP analysis determined that the finding was of very low safety significance (Green), during the 16 day exposure period, in that there was a reasonable probability that operators would have successfully locally closed the output breaker. This finding had a cross-cutting aspect in the area of human performance, decision making [IMC 0305, Aspect H.1(a)], because the safety-significant and risk-significant decisions concerning the #1 EDG were not completed in a systematic process to ensure safety is maintained.
Inspection Report# : 2009009 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Evaluation Results In Instrument Air Transient
A self revealing finding occurred when Exelon did not adequately evaluate the impact of water which had entered the service air system in December 2008 which resulted in an accumulation of failed desiccant and corrosion products in the 'C&D' instrument air dryer purge valve. This caused the purge valve to seize in the open position and an instrument air transient on April 5. This finding was determined not to be a violation of NRC requirements. Exelon's corrective actions included replacing the desiccant, repairing the air dryer purge valve and installing it in its proper orientation. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the configuration control attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the inspectors conducted a Phase 1 SDP screening and determined that a detailed Phase 2 evaluation was required to assess the safety significance because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The inspectors determined that the finding was of very low safety significance (Green) using Table 2, "Initiators and Dependency Table for Oyster Creek Nuclear Generating Station," and Table 3.4, "SDP Worksheet for Oyster Creek Nuclear Generating Station – Loss of Instrument Air (LOIA)," in the Risk-Informed Inspection Notebook for Oyster Creek Nuclear Generating Station. The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, corrective action program [IMC 0305, Aspect P.1(c)], because Exelon did not fully evaluate the effect of the failure of the #3 air compressor after cooler to include the potential of water intrusion into the service air system.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Ineffective Use of Operating Experience on Main Power Transformer Cooling System
A self revealing finding occurred when Exelon did not adequately evaluate operating experience (OE) regarding transformer cooling issues. Specifically, Exelon did not identify and correct a single point vulnerability (SPV) on the main transformers cooling system control circuitry. This resulted in a manual reactor scram in April 2009 when the 'M1A' main power transformer lost all cooling and the cooling system could not be restored. This finding was determined not to be a violation of NRC requirements. Exelon's corrective actions included modifying the cooling system control circuitry on the 'M1A' and 'M1B' main power transformer to address the SPV. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, operating experience [IMC 0305,

Aspect P.2(a)], because Exelon did not evaluate relevant internal and external OE to identify a SPV in the transformer cooling system.

Inspection Report# : 2009003 *(pdf)*

Mitigating Systems

Significance: G Aug 13, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Control Foreign Material in the Shell Side of the 'B' Isolation Condenser
The NRC identified a self-revealing finding of very low safety significance (Green) that involved an NCV of Oyster Creek Technical Specification 6.8.1, “Procedures and Programs,” because Exelon did not adequately implement a safety- related maintenance activity. Specifically, foreign material exclusion (FME) control requirements during maintenance in November 2008 were not properly implemented which allowed foreign material to enter the ‘B’ Isolation Condenser (IC) level instrumentation piping. This resulted in the unavailability of the IC due to erratic water level indication during the July 12, 2009 event. The team found that Exelon took adequate corrective actions to restore the ‘B’ IC’ to an operable condition including back-flushing the instrumentation piping, calibrating the instrument, and revising the surveillance procedure to incorporate back-flushing of the instrument piping during surveillances. Exelon entered this issue into their corrective action program.

The finding was more than minor because it was associated with the human performance attribute of the Mitigating Systems Cornerstone and it adversely affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A Phase 3 SDP analysis determined that this finding was of very low safety significance (Green), during the 233 day exposure period, in that there was a reasonable probability that the operators could have successfully used the ‘B” IC. The finding was identified to have a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4(c)], because Exelon did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported.

Inspection Report# : 2009009 *(pdf)*

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Medium Voltage Cables Maintained Submerged for Extended Period of Time
The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion XVI, ”Corrective Action,” because Exelon has not implemented effective actions to minimize water accumulation and submergence of medium voltage cables contained in the turbine building closed cooling water (TBCCW) heat exchanger pit as recommended by their cable conditioning monitoring program. Exelon’s corrective actions included revising equipment operator instructions to direct them to ensure that cables were not maintained submerged. This issue has been entered into Exelon’s corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), “Issue Screening,” because it was associated with the equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04 (Table 4a), “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, operating experience [IMC 0305, Aspect P.2(b)], because Exelon did not implement and institutionalize operating experience through changes to station processes, procedures, and equipment. Specifically, Exelon did not change operations instructions or plant equipment to better monitor and remediate the presence of water in the TBCCW heat exchanger pit to minimize the submergence of medium voltage cables as recommended by internal and external operating

experience.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Improper Solder Joint Causes Safety Related Station Battery Charger Failure
A self revealing NCV of Oyster Creek Technical Specifications 6.8.1, "Procedures and Programs," occurred when Exelon did not properly implement maintenance instructions and perform adequate soldering on the 'C2' battery charger. This resulted in a wire connected to the power thyristor control module to come loose during operation which caused the battery charger to fail on April 13. Exelon's corrective actions included repairing the 'C2 battery charger, inspecting the other solder joints accomplished during the maintenance activity, and evaluating the need for additional training for maintenance technicians. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with equipment performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, resources [IMC 0305, Aspect H.2(b)], because the training of personnel was not sufficient to ensure nuclear safety. Specifically, although the initial qualification training provided Exelon personnel with the knowledge to perform proper solder joints, the lack of a continuing training program to maintain proficiency and not performing just in time training prior to an infrequently performed maintenance evolution resulted in the overall training of the maintenance personnel to be insufficient to prevent the performance or identification of defective solder joints.

Inspection Report# : 2009003 *(pdf)*

Significance: SL-IV May 15, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate 10 CFR 50.59 Evaluation for Trunnion Room Door/Secondary Containment Temporary Modification
Severity Level IV. The team identified a Severity Level IV non-cited violation of 10 CFR 50.59, "Changes, Tests, and Experiments," in that, Exelon did not obtain a license amendment for a change in the facility that involved a change to the technical specifications (TS). Specifically, Exelon implemented a temporary modification that changed the secondary containment boundary, but was prohibited by TS requirements, without first obtaining the necessary license amendment. In response, Exelon entered the issue into the corrective action program for evaluation. Current compliance with TS was not challenged since the temporary modification was restored as of November 15, 2008.

The violation is more than minor because the change that required the 10 CFR 50.59 evaluation would have required NRC review and approval prior to implementation. Because this was a violation of 10 CFR 50.59, it was considered to be a violation that potentially impedes or impacts the regulatory process. Therefore, this violation was evaluated using the traditional enforcement process. Comparing this item to the examples in NUREG 1600 (Enforcement Policy), Supplement I, this finding is similar to Item D.5, "Violations of 10 CFR 50.59 that result in conditions evaluated as having very low safety significance (i.e., Green) by the SDP." This is an example of a Severity Level IV violation. The team determined the violation to be of very low safety significance (Green) because it did not adversely impact shutdown mitigation capabilities and did not result in a loss of control.

This finding has a cross-cutting aspect in the area of Human Performance, Decision-Making Component, because Exelon did not use conservative assumptions in decision making during the safety evaluation performance and review. Specifically, Exelon did not consider the TS requirements and UFSAR and TS bases when performing and reviewing a safety evaluation that permitted a configuration that was not authorized by TSs.

Inspection Report# : 2009007 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Action for the 'B' Spent Fuel Pool Cooling Pump
A self-revealing non-cited violation (NCV) was identified of 10CFR50 Appendix B, Criterion XVI, "Corrective Action" was identified when Exelon did not take timely corrective action to address an identified degrading trend in the performance on the B spent fuel pool cooling pump. Exelon repaired the pump by replacing the impeller and performed a satisfactory in-service test (IST) on December 8, and entered the issue into the corrective action program.

The NCV was not similar to the examples cited in IMC 0612 Appendix E, but the inspectors determined it was more than minor because it was associated with the SSC performance attribute of the barrier integrity cornerstone objective to provide reasonable assurance that the physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the functionality of the spent fuel pool cooling system. The inspectors determined this issue was of very low safety significance (Green) because the issue did not result in a loss of cooling to the spent fuel pool where operator or equipment failures could preclude restoration of cooling prior to pool boiling, did not result from fuel handling errors that caused damage to fuel clad integrity or a dropped assembly, and did not result in a loss of spent fuel pool inventory greater than ten percent of the fuel pool volume. The performance deficiency had a cross-cutting aspect in the area of human performance, work control [H.3(b)] because Exelon did not effectively coordinate work activities by implementing actions to communicate, coordinate and cooperate with each other during activities in which interdepartmental coordination is necessary to assure plant and human performance.
Inspection Report# : 2009005 *(pdf)*

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Conservative Acceptance Criteria Specified In SBGTS Surveillance Procedure
The inspectors identified a NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," because Exelon did not ensure that the surveillance test procedure utilized for the standby gas treatment system (SBGTS) included appropriate acceptance criteria to determine the maximum allowable differential pressure (dP) for the high efficiency particulate air (HEPA) filters. Exelon's corrective actions included performing a technical evaluation to assess the operability of the SBGTS and revising the surveillance test procedure and control room alarm response procedure. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the procedure quality attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barrier protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, resources [IMC 0305, Aspect H.2(c)], because Exelon did not ensure that accurate procedures were available for the surveillance test. Specifically, the acceptance criteria specified in surveillance test procedure was not the same and was non-conservative to that specified in the Oyster Creek technical specifications.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Adverse Trend on #1 SBGTS Not Identified

A self revealing NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," occurred when Exelon did not identify a degraded condition on the #1SBGTS HEPA filter in March 2009. This resulted in the HEPA filter exceeding the technical specification allowable acceptance criteria for pressure drop across the filter and the SBGTS #1 being declared inoperable in May 2009. Exelon's corrective actions included replacing the HEPA filters, reviewing #2 SBGTS historical performance data, and reviewing the expectations for system monitoring with engineering personnel. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with systems, structures and components (SSC) and barrier performance attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of problem identification and resolution, corrective action program [IMC 0305, Aspect P.1(a)], because Exelon personnel did not identify an issue that potentially impacted nuclear safety. Specifically, Exelon personnel did not identify a degraded trend on the SBGTS #1.

Inspection Report# : 2009003 *(pdf)*

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Loss of Secondary Containment Integrity During Maintenance on Reactor Building Roof
A self revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" occurred when Exelon personnel did not properly implement a procedure for the control of secondary containment integrity during maintenance activities when both reactor building roof access airlock hatches were maintained opened at the same time on April 1. Exelon's corrective actions included installing a label on the roof hatch doors which specify control requirements, replacing the door lock with one controlled by operations personnel, and reinforcing with maintenance personnel the requirements for pre-job briefings. This issue has been entered into Exelon's corrective action program.

The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the configuration control attribute of the barrier integrity (maintain radiological barrier functionality of SBGTS trains - BWR only) cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barrier protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green). The performance deficiency had a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4(a)], because human error prevention techniques were not used commensurate with the risk of the assigned task, such that work activities are performed safely. Specifically, Exelon personnel did not effectively utilize pre-job briefs and self and peer checks to ensure that secondary containment integrity would be maintained during maintenance activities on the reactor building roof.

Inspection Report# : 2009003 *(pdf)*

Significance: G May 15, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Control for RBCCW Containment Isolation Valve Modification
Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that Exelon did not ensure the adequacy of a reactor building closed cooling water system containment isolation check valve design. Specifically, Exelon modified the check valve but did not ensure that the replacement valve could meet the existing design basis temperature value. In response, Exelon entered the issue in their corrective action program and evaluated the design temperature of the check valve to assure the valve would function properly during postulated events.

The finding is more than minor because it is associated with the design control attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective of
providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The team determined the finding screened as very low safety significance (Green) because it did not represent a degradation of the radiological barrier function provided for the control room, auxiliary building, or spent fuel pool, did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere, did not represent an actual open pathway in the physical integrity of reactor containment, and did not involve an actual reduction in function of hydrogen igniters in the reactor containment.

This finding has a cross-cutting aspect in the area of Human Performance, Work Practices Component, because Exelon did not define and effectively communicate expectations regarding procedural compliance and personnel did not follow procedures. Specifically, Exelon did not comply with procedure CC-AA-102, “Design Input and Configuration Change Impact Screening,” to evaluate the design temperature of the newly installed check valve to ensure that all affected systems can perform their design basis functions. (IMC 0305, Aspect H.4(b))

Inspection Report# : 2009007 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : May 26, 2010

Oyster Creek
2Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Unexpected power drop when transferring mode of control of recirculation pump
A self-revealing NCV of Oyster Creek Technical Specification 6.8.1, "Procedures and Programs," occurred when Exelon did not properly implement procedures to transfer the "D" reactor recirculation pump from local manual to remote manual control which resulted in an unplanned reduction in reactor power on August 6. Operations personnel misread the scoop tube position indicator on "D" reactor recirculation pump motor generator set and did not properly match it with the speed indicated on the remote controller in the control room as required by the procedure, resulting in a reduction in recirculation flow and a reduction in reactor power. Exelon's corrective actions included restoring "D" reactor recirculation pump speed, replacement of the existing unmarked scoop tube position indicators with numbered position indicators and a revision of the procedure 301.2 "Reactor Recirculation System" to include cautions and additional information on how to read the scoop tube position indicators. This issue has been entered into Exelon's corrective action program.

This finding was more than minor because it was similar to example 4.b in Inspection Manual Chapter 0612, Appendix E and resulted in a power reduction of 3%. Additionally, the finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding affected the initiating events cornerstone and was a transient initiator contributor that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. The performance deficiency had a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4.(a)], because Exelon did not effectively implement human error prevention techniques, such as self and peer checking. Specifically, Exelon did not effectively use peer checking when determining the position of the reactor recirculation pump motor generator set scoop tube and the operators proceeded in the face of uncertainty when faced with poorly marked scoop tube position indicators. (Section 4OA3)

Inspection Report# : 2009004 *(pdf)*

Significance: G Aug 13, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct a Degraded Condition Leading to #1 EDG Inability to Perform Its Safety Function
The NRC identified a finding of very low safety significance (Green) that involved a non-cited violation (NCV) of 10 CFR50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not identify and correct a degraded condition which resulted in subsequent inoperablility that would have prevented the #1 emergency diesel generator (EDG) from automatically performing its safety function. Specifically, the troubleshooting activity following the July 12, 2009, event, conducted prior to restart on July 15, 2009, did not identify the degraded operation of Generator Breaker Close (GBC) relay contacts. Continued degradation of these relay contacts subsequently resulted in the #1 EDG output breaker not closing during surveillance testing on August 3, 2009. The team found that Exelon replaced the GBC relay and its base and conducted an adequate post-maintenance test, returning the #1 EDG to an operable condition on August 5, 2009. Exelon entered this issue into the corrective action program.

The finding was more than minor because it was associated with the equipment reliability attribute of the Mitigating Cornerstone and it adversely affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A Phase 3 SDP analysis determined that the finding was of very low safety significance (Green), during the 16 day exposure period, in that there was a reasonable probability that operators would have successfully locally closed the output breaker. This finding had a cross-cutting aspect in the area of human performance, decision making [IMC 0305, Aspect H.1(a)], because the safety-significant and risk-significant decisions concerning the #1 EDG were not completed in a systematic process to ensure safety is maintained.
Inspection Report# : 2009009 *(pdf)*

Mitigating Systems

Significance: G Aug 13, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Control Foreign Material in the Shell Side of the 'B' Isolation Condenser
The NRC identified a self-revealing finding of very low safety significance (Green) that involved an NCV of Oyster Creek Technical Specification 6.8.1, “Procedures and Programs,” because Exelon did not adequately implement a safety- related maintenance activity. Specifically, foreign material exclusion (FME) control requirements during maintenance in November 2008 were not properly implemented which allowed foreign material to enter the ‘B’ Isolation Condenser (IC) level instrumentation piping. This resulted in the unavailability of the IC due to erratic water level indication during the July 12, 2009 event. The team found that Exelon took adequate corrective actions to restore the ‘B’ IC’ to an operable condition including back-flushing the instrumentation piping, calibrating the instrument, and revising the surveillance procedure to incorporate back-flushing of the instrument piping during surveillances. Exelon entered this issue into their corrective action program.

The finding was more than minor because it was associated with the human performance attribute of the Mitigating Systems Cornerstone and it adversely affected the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A Phase 3 SDP analysis determined that this finding was of very low safety significance (Green), during the 233 day exposure period, in that there was a reasonable probability that the operators could have successfully used the ‘B” IC. The finding was identified to have a cross-cutting aspect in the area of human performance, work practices [IMC 0305, Aspect H.4(c)], because Exelon did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported.

Inspection Report# : 2009009 *(pdf)*

Barrier Integrity

Significance: G Apr 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Adjustments to Maintenance Rule System Performance Criteria not made after Biannual Evaluation
The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65(a)(3), requirements for monitoring the effectiveness of maintenance at nuclear power plants (maintenance rule), because Exelon did not make adjustments to established performance and condition monitoring goals to ensure that unavailability and reliability of structures, systems and components (SSC) were appropriately balanced. Specifically, Exelon did not ensure that corrective actions identified in a 2006-2007 (a)(3) evaluation to update performance criteria sheets for maintenance rule systems were

adequately implemented. Exelon entered this issue into their corrective action system as IR 1053237.

This finding is not similar to any of the IMC 0612 Appendix E minor examples, but is more than minor because if left uncorrected it would have the potential to lead to a more significant safety concern. Specifically, the failure to implement revised performance criteria could prevent the screening of safety significant systems that have exceeded their performance criteria through a maintenance rule expert panel and prevent Exelon from monitoring degraded components against established goals in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. This finding is not suitable for evaluation using the Significance Determination Process (SDP) because the performance deficiency did not cause the degraded equipment performance. Findings for which the SDP does not apply may be Green or assigned a severity level after NRC management review. Per the guidance provided in NRC inspection procedure 71111.12, this issue is considered to be a Category II finding and thus, per NRC management review, is considered to be Green. This finding has a cross-cutting aspect in the area of problem identification and resolution (P.3(c)). Specifically, Exelon did not ensure that actions identified in the 2006-2007 (a)(3) assessment to update performance criteria sheets for maintenance rule systems were completed and implemented. (Section 1 R12)
Inspection Report# : 2010002 *(pdf)*

Significance: G Apr 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Declare The Rod Worth Minimizer Inoperable At The Time Operability Criteria Was Not Met And Enter The Correct Technical Specification Action Statement
An NRC identified NCV of Technical Specification (TS) 6.8.1, Procedures and Programs, was identified when Exelon did not declare the rod worth minimizer (RWM) inoperable prior to completing the withdrawal of the twelfth rod during a reactor startup on July 15, 2009. During the startup, the RWM exhibited difficulty following the movement of control rods, had difficulty following which control rod was selected, and generated a total of 3 rod blocks even though the physical configuration of the control rod positions was in accordance with the control rod withdrawal sequence. Although operations personnel were aware of these malfunctions of the RWM, they believed that the rod blocks being generated were conservative and did not consider the operability criteria contained in the RWM operating procedure. At the beginning of the withdrawal of the twelfth control rod, the RWM generated an improper rod block and began tracking a control rod that had not been selected or withdrawn. The operators were able to clear the rod block and fully withdraw the rod. The operators declared the RWM inoperable based upon the improper rod block that occurred at the beginning of the withdrawal of the twelfth rod, but entered the TS action statement based upon the time that the operability decision was made, which was after the rod was fully withdrawn. Because of this conclusion, the wrong TS action statement was entered and all actions and limitations associated with the correct TS were not completed. This issue has been entered into Exelon's corrective action program.

The finding was more than minor because it was similar to example 2.g of IMC 0612 Appendix E. Additionally, the finding was more than minor because it was associated with the Design Control attribute of the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding affected the barrier integrity cornerstone and was a fuel barrier

issue. The performance deficiency had a cross-cutting aspect in the area of human performance, decision making [H.1(a)]. because Exelon did not make a safety significant decision using a systematic process when faced with uncertain or unexpected plant conditions. Specifically, Exelon did not consider the operability criteria in procedure 409, "Operation of the Rod Worth Minimizer," when faced with a malfunctioning RWM during the reactor startup on July 15, 2009. (Section 1R15)
Inspection Report# : 2010002 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Action for the 'B' Spent Fuel Pool Cooling Pump
A self-revealing non-cited violation (NCV) was identified of 10CFR50 Appendix B, Criterion XVI, "Corrective Action" was identified when Exelon did not take timely corrective action to address an identified degrading trend in the performance on the B spent fuel pool cooling pump. Exelon repaired the pump by replacing the impeller and performed a satisfactory in-service test (IST) on December 8, and entered the issue into the corrective action program.

The NCV was not similar to the examples cited in IMC 0612 Appendix E, but the inspectors determined it was more than minor because it was associated with the SSC performance attribute of the barrier integrity cornerstone objective to provide reasonable assurance that the physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the functionality of the spent fuel pool cooling system. The inspectors determined this issue was of very low safety significance (Green) because the issue did not result in a loss of cooling to the spent fuel pool where operator or equipment failures could preclude restoration of cooling prior to pool boiling, did not result from fuel handling errors that caused damage to fuel clad integrity or a dropped assembly, and did not result in a loss of spent fuel pool inventory greater than ten percent of the fuel pool volume. The performance deficiency had a cross-cutting aspect in the area of human performance, work control [H.3(b)] because Exelon did not effectively coordinate work activities by implementing actions to communicate, coordinate and cooperate with each other during activities in which interdepartmental coordination is necessary to assure plant and human performance.
Inspection Report# : 2009005 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : September 02, 2010

Oyster Creek
3Q/2010 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: FIN Finding
Preconditioning of Isolation Condenser Valves Prior to ASME In-service Test
Green: The inspectors identified a Green finding when Exelon cycled valves for maintenance prior to performing scheduled quarterly in-service testing (IST) which resulted in unacceptable preconditioning of valves within the isolation condenser system on April 7. This finding was of very low safety significance and was determined not to be a violation of NRC requirements. Exelon entered this issue into their corrective action system as IR 1053801.

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 ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event.

The performance deficiency had a cross-cutting aspect in the area of human performance because Exelon did not appropriately coordinate work activities to support long term equipment reliability. [H.3(b)]. (Section 1R19)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Core Spray ASME Code Compliance Issues
Green: The inspectors identified a SL IV, Green non-cited violation of 10CFR50.55(a) when Exelon did properly implement the ASME code requirements for the core spray system check valves. Specifically, Exelon did not properly implement the ASME Check Valve Condition Monitoring Program, improperly extended the inspection interval when working under the condition monitoring program, and did not restore compliance with the ASME code for check valve testing once the condition monitoring program requirements were not met. Exelon entered this issue into their corrective action system as IR 1093256.

This finding is more than minor because it affects the equipment performance attribute of the mitigating system cornerstone to ensure the reliability and availability of the core spray system. Specifically, ASME testing assesses the operational readiness of certain valves required to perform a specific safety function. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety

function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event.

The inspectors determined that the finding also involved traditional enforcement because Exelon did not seek NRC approval prior to using alternate means to demonstrate the core spray check valves could perform their intended function, which impacted the regulatory process. In accordance with Supplement I, Reactor Operations, of the NRC Enforcement Policy, the NRC determined that the safety significance of this violation was SL IV because the situation, per example 3 of a SL IV violation, was a matter with more than a minor safety or environmental significance.

This finding has a cross-cutting aspect in the area of human performance because Exelon did not use conservative assumptions in decision making and assumed the core spray system check valves would be in compliance with the ASME code despite using a non-approved testing method (H.1(b)). (Section 1R15)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Preventive Maintenance Procedure Leading to Incomplete Fire Diesel Maintenance
Green. The inspectors identified a Green non-cited violation of Technical Specification 6.8.1 for Exelon's failure to follow MA-MA-716-009, "Preventive Maintenance Work Order Process." Specifically, Exelon closed work order R2120325 without completing the necessary work and did not take action to evaluate the acceptability of this action, contrary to MA-MA-716-009 requirements. Exelon entered this issue into their corrective action program as IRs 1085811 and 1088269 to evaluate the corrective actions needed to address this issue.

This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone and affects the cornerstone objective of ensuring the availability, reliability, and dependability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the fire diesel is the credited backup source of makeup water to the isolation condensers and the failure to perform scheduled preventive maintenance challenges the availability and reliability of the diesel.
This finding affects the fire protection defense-in-depth strategies involving fire suppression and screens to Green using IMC 0609, Appendix F, "Fire Protection Significance Determination Process." Because of the fire diesel function as an isolation condenser makeup source, the inspectors reviewed the Mitigating Systems Cornerstone as well and found it also screened to Green because the finding is not a design or qualification deficiency confirmed not to result in loss of operability, does not represent a loss of system safety function, does not represent the actual loss of safety function of a single train for greater than its allowed outage time, does not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65 for greater than 24 hours, and does not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance because Exelon personnel did not follow procedures. Specifically, when Exelon did not follow or refer to procedure MA-MA-716-009, "Preventive Maintenance Work Order Process," they did not develop an evaluation to consider the impacts of omitting portions of the work package for the two-year fire diesel preventive maintenance [H.4(b)] [Section 40A2.1.c.(2)]
Inspection Report# : 2010007 *(pdf)*

Barrier Integrity

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions Associated With the Reactor Building to Torus Vacuum Breaker Trip Valve Failures
Green. The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly identify and correct a condition adverse to quality associated with the January 2009 failure of the reactor building to torus vacuum breaker system. Specifically, Exelon did not promptly identify and correct an inadequate instrument air flow capacity condition associated with the reactor building to torus vacuum breaker trip valve. Due to the inadequate corrective actions, the reactor building to torus vacuum breaker system experienced a subsequent failure in April 2009. Exelon entered this issue into their corrective action program as I R 1088325 to evaluate the corrective actions needed to address this issue.

The finding was determined to be more than minor because the performance deficiency was associated with the containment attribute of the barrier integrity cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Barrier Integrity Cornerstone. Specifically, since all four containment barrier screening questions were answered "no," the finding was determined to be of very low safety significance (Green). In addition, the failure did not represent an actual open pathway in the physical integrity of the reactor containment. This finding has a cross-cutting aspect in the area of problem identification and resolution because Exelon failed to thoroughly evaluate the condition adverse to quality and appropriately address the cause. [P.1.(c)] [Section 40A2.1.c.(1)]
Inspection Report# : 2010007 *(pdf)*

Significance: G Apr 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Adjustments to Maintenance Rule System Performance Criteria not made after Biannual Evaluation
The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65(a)(3), requirements for monitoring the effectiveness of maintenance at nuclear power plants (maintenance rule), because Exelon did not make adjustments to established performance and condition monitoring goals to ensure that unavailability and reliability of structures, systems and components (SSC) were appropriately balanced. Specifically, Exelon did not ensure that corrective actions identified in a 2006-2007 (a)(3) evaluation to update performance criteria sheets for maintenance rule systems were adequately implemented. Exelon entered this issue into their corrective action system as IR 1053237.

This finding is not similar to any of the IMC 0612 Appendix E minor examples, but is more than minor because if left uncorrected it would have the potential to lead to a more significant safety concern. Specifically, the failure to implement revised performance criteria could prevent the screening of safety significant systems that have exceeded their performance criteria through a maintenance rule expert panel and prevent Exelon from monitoring degraded components against established goals in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. This finding is not suitable for evaluation using the Significance Determination Process (SDP) because the performance deficiency did not cause the degraded equipment performance. Findings for which the SDP does not apply may be Green or

assigned a severity level after NRC management review. Per the guidance provided in NRC inspection procedure 71111.12, this issue is considered to be a Category II finding and thus, per NRC management review, is considered to be Green. This finding has a cross-cutting aspect in the area of problem identification and resolution (P.3(c)). Specifically, Exelon did not ensure that actions identified in the 2006-2007 (a)(3) assessment to update performance criteria sheets for maintenance rule systems were completed and implemented. (Section 1 R12)
Inspection Report# : 2010002 *(pdf)*

Significance: G Apr 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Declare The Rod Worth Minimizer Inoperable At The Time Operability Criteria Was Not Met And Enter The Correct Technical Specification Action Statement
An NRC identified NCV of Technical Specification (TS) 6.8.1, Procedures and Programs, was identified when Exelon did not declare the rod worth minimizer (RWM) inoperable prior to completing the withdrawal of the twelfth rod during a reactor startup on July 15, 2009. During the startup, the RWM exhibited difficulty following the movement of control rods, had difficulty following which control rod was selected, and generated a total of 3 rod blocks even though the physical configuration of the control rod positions was in accordance with the control rod withdrawal sequence. Although operations personnel were aware of these malfunctions of the RWM, they believed that the rod blocks being generated were conservative and did not consider the operability criteria contained in the RWM operating procedure. At the beginning of the withdrawal of the twelfth control rod, the RWM generated an improper rod block and began tracking a control rod that had not been selected or withdrawn. The operators were able to clear the rod block and fully withdraw the rod. The operators declared the RWM inoperable based upon the improper rod block that occurred at the beginning of the withdrawal of the twelfth rod, but entered the TS action statement based upon the time that the operability decision was made, which was after the rod was fully withdrawn. Because of this conclusion, the wrong TS action statement was entered and all actions and limitations associated with the correct TS were not completed. This issue has been entered into Exelon's corrective action program.

The finding was more than minor because it was similar to example 2.g of IMC 0612 Appendix E. Additionally, the finding was more than minor because it was associated with the Design Control attribute of the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding affected the barrier integrity cornerstone and was a fuel barrier issue. The performance deficiency had a cross-cutting aspect in the area of human performance, decision making [H.1(a)]. because Exelon did not make a safety significant decision using a systematic process when faced with uncertain or unexpected plant conditions. Specifically, Exelon did not consider the operability criteria in procedure 409, "Operation of the Rod Worth Minimizer," when faced with a malfunctioning RWM during the reactor startup on July 15, 2009. (Section 1R15)
Inspection Report# : 2010002 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Untimely Corrective Action for the 'B' Spent Fuel Pool Cooling Pump

A self-revealing non-cited violation (NCV) was identified of 10CFR50 Appendix B, Criterion XVI, “Corrective Action” was identified when Exelon did not take timely corrective action to address an identified degrading trend in the performance on the B spent fuel pool cooling pump. Exelon repaired the pump by replacing the impeller and performed a satisfactory in-service test (IST) on December 8, and entered the issue into the corrective action program.

The NCV was not similar to the examples cited in IMC 0612 Appendix E, but the inspectors determined it was more than minor because it was associated with the SSC performance attribute of the barrier integrity cornerstone objective to provide reasonable assurance that the physical design barriers protect the public from radionuclide releases caused by accidents or events by maintaining the functionality of the spent fuel pool cooling system. The inspectors determined this issue was of very low safety significance (Green) because the issue did not result in a loss of cooling to the spent fuel pool where operator or equipment failures could preclude restoration of cooling prior to pool boiling, did not result from fuel handling errors that caused damage to fuel clad integrity or a dropped assembly, and did not result in a loss of spent fuel pool inventory greater than ten percent of the fuel pool volume. The performance deficiency had a cross-cutting aspect in the area of human performance, work control [H.3(b)] because Exelon did not effectively coordinate work activities by implementing actions to communicate, coordinate and cooperate with each other during activities in which interdepartmental coordination is necessary to assure plant and human performance.
Inspection Report# : 2009005 *(pdf)*

Emergency Preparedness

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Adequate Compensatory Actions for the RAGEMS Being Out Of Service
Green: The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.54(q), “Conditions of Licenses,” because Exelon did not properly maintain the conditions of the Oyster Creek Emergency Plan. Specifically, Exelon did not implement timely compensatory actions for the Plan and its implementing procedures when the Oyster Creek main stack radioactive gaseous effluent monitoring system (RAGEMS) was discovered to have a faulted sample supply line. The licensee entered this issue into their corrective action program and implemented corrective actions, including revising site procedures to provide for an alternate sampling plan and the repair of the sample line.

The finding was more than minor because it affected the Emergency Response Organization Performance attribute of the EP Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, “Emergency Preparedness Significance Determination Process,” the inspectors determined the finding to be of very low safety significance (Green), because other methods of performing the dose assessment function were functional while the RAGEMS was unavailable.

The performance deficiency had a cross-cutting aspect in the area of corrective action, because there were indications that the RAGEMS sample line had not been sufficiently repaired, yet Exelon did not implement compensatory actions in a timely manner to assure the RAGEMS dose assessment function was still available. Specifically, the RAGEMS was out of service for 12 days from the time of the sample line defect identification, yet an adequate alternate sampling plan was not in place until 8 days after that discovery [P.1(d)]. (Section 4OA2)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Notify the NRC within the time requirements of 10 CFR 50.72
Green: The NRC identified a Severity Level IV non-cited violation (NCV) of 10 CFR 50.72 when Exelon did not make the required initial notification within 8 hours of the occurrence of the condition. Specifically, on the morning of

April 7th, a maintenance technician found the stack radioactive gas effluent monitoring system (RAGEMS) sampling line disconnected, which rendered it inoperable and Exelon did not make the required report until 1535 on April 8. The licensee entered this issue into their corrective action program with an action to review this issue for lessons learned and to incorporate them into an ongoing apparent cause evaluation on technical human performance.

The finding was more than minor because it is similar to inspection manual chapter 0612, appendix E, example 2.d. The finding was determined to be subject to traditional enforcement because the NRC's ability to perform its regulatory function was potentially impacted by the licensee's failure to report the event within the eight hour time requirement of 10 CFR 50.72. The finding was determined to be a Severity Level IV violation in accordance with Section D of Supplement I of the NRC Enforcement Policy. The finding was not suitable for evaluation using the significance determination process, but has been reviewed by NRC management and is determined to be a finding of very low safety significance.

This finding has a cross-cutting aspect in the area of human performance, decision-making. Specifically, Exelon's delay in determining that the reported condition of the stack RAGEMS sampling line constituted a loss of monitoring capability did not demonstrate that the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. [H.1(b)]. (Section 4OA3)

Inspection Report# : 2010003 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : November 29, 2010

Oyster Creek
4Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Implement Procedures Resulting in Reactor Scram
A Green, self-revealing NCV of Technical Specification 6.8.1.a occurred when Exelon did not adequately implement plant startup procedures which resulted in an automatic reactor scram. Immediate corrective actions included just in time training with all reactor operators, increased management oversight during the subsequent startup, and procedural changes to list all alarms by name that must be cleared prior to raising reactor pressure above 500 psig. Exelon is performing a full root cause evaluation on the event (IR 1155520).

The inspectors determined that the performance deficiency was similar to the "not minor if" statement contained in example 4b of IMC 0612, Appendix E, "Examples of Minor Issues," because the performance issue resulted in a manual reactor scram. The finding was more than minor in accordance with IMC 0612, Appendix B, "Issue Screening," because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operation. In accordance with IMC 0609.04 (Table 4a), "Phase 1 – Initial Screen and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross-cutting aspect in the area of human performance, work practices (H.4(b)), where personnel work practices support human performance. Specifically, Exelon defines and effectively communicates expectations regarding procedural compliance and personnel follow procedures. On December 23, operators did not verify that condenser vacuum was adequate prior to raising reactor pressure above 500 psig contrary to established procedural guidance.

Inspection Report# : 2010005 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Snubber Maintenance History Not Taken Into Account When Conducting Service Life Reviews
The inspectors identified a Green non-cited violation of technical specification 4.5.M.1.f, "Snubber Service Life Monitoring", while inspecting 4 snubber testing failures that occurred during 1R23. Specifically, Exelon's snubber testing program, contained in SP-1302-52-045, "Requirements for Functional Testing of Snubbers", does not evaluate snubber maintenance and test records to identify common cause failures of snubbers due to environmental (temperature, vibration, humidity, etc) conditions and adjust snubber service life expectations accordingly so snubber service life reviews can be accomplished effectively without service life affecting reactor operations. Exelon took immediate corrective action to repair or replace the failed snubbers, performed an analysis to ensure the snubber failures had no impact on system operation, and entered this issue into their corrective action program.

There are no similar examples in IMC 0612, Appendix E, "Examples of Minor Issues". This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone to ensure the availability, reliability and capability of system that respond to initiating events to prevent undesirable consequence,

specifically the safety related piping systems in containment. In accordance with table 4a of IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance (Green) because it was a qualification deficiency confirmed not to result in loss of operability or functionality. This finding has a cross-cutting aspect in the area of problem identification and resolution because Exelon did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions. Additionally, Exelon did not conduct effectiveness reviews of corrective actions to ensure that the problems are resolved. (P.1(c)).

Inspection Report# : 2010005 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Scaffold Installation Procedure Not Properly Implemented
The team identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, because Exelon did not properly implement scaffolding control procedural requirements. Specifically, Exelon did not perform engineering evaluations for scaffolding constructed within the minimum allowed distance of safety related equipment to determine its acceptability. Exelon entered the issue into their corrective action system and remediated each identified scaffold issue in accordance with procedural requirements.

The finding was more than minor because it was associated with the external factors attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 -Initial Screening and Characterization of Findings, the finding was determined to be of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of a systemltrain safety function, and did not screen as potentially risk significant due to external events. The performance deficiency had a cross-cutting aspect in the area of human performance, Work Practices, because Exelon had not effectively communicated expectations regarding procedural compliance. Specifically, Exelon had not followed procedures and obtained engineering evaluations for scaffolds that did not meet the requirements contained in procedures for scaffold installation in the plant. [IMC 0310, Aspect H.4(b)].
Inspection Report# : 2010008 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
EDG Low Voltage Control Cable Submergence
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion III, Design Control. Specifically, Exelon did not maintain safety-related emergency diesel generator (EDG) instrumentation and low voltage control cables in the EDG cable trenches from becoming submerged, which resulted in subjecting the cables to an environment for which they were not qualified. Exelon entered the issue into their corrective action program and determined that there was no impact to EDG operability based on the observed condition of the cables and no apparent signs of degradation. The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, Exelon did not maintain the cables for the EDG 1 and EDG 2 in an environment for which they were designed when the cables were allowed to be

submerged in a below grade trench without ensuring adequate drainage. The team determined the finding could be evaluated using the SDP in accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 - Initial Screening and Characterization of Findings. The finding was of very low safety significance because it was a qualification deficiency confirmed not to result in a loss of operability.

The performance deficiency had a cross-cutting aspect in the area of human performance, Resources, because Exelon did not ensure that personnel, equipment, procedures, and other resources were available and adequate to maintain long term plant safety through minimization of long-standing equipment issues. Specifically, Exelon did not correct long-standing deficiencies that allowed debris to block the drains allowing the cables to become submerged. Additionally, procedures were not adequate to ensure that the trenches were inspected and the drains were maintained to ensure that they remained free of debris. [IMC 0310, Aspect H.2.(a)).
Inspection Report# : 2010008 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
1A2 and 1B2 480 V Load Center Transformer Cooling Fan Testing
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion XI, Test Control, because Exelon had not established a test program for safety-related load center transformer cooling fans to confirm the capability of the fans to cool the load center at its rated output. Specifically, Exelon had not established periodic testing to verify the 1A2 and 1 B2 transformer cooling fans were functional to support the design rating allowed for in operational procedures. This failed to meet the design requirement established in modification package SDD OC-732A, which required in part, that the cooling system fans shall be periodically tested for operability both in the manual and automatic modes. Exelon entered the issue into the corrective action program and tested the fans during the inspection to ensure the fans were operational in the manual mode and would be in a ready to operate status if needed.

The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the lack of testing impacts the objective because there is no method to determine the capability of the fans to support cooling of the transformers at their rated output. The team determined the finding could be evaluated using the SDP in accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1-lnitial Screening and Characterization of Findings. The finding was of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of a system/train safety function, and did not screen as potentially risk significant due to external events. The team did not identify a cross-cutting aspect with this finding because this was an old design/test issue and therefore was not reflective of current performance.
Inspection Report# : 2010008 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Core Spray System I Pump Room Degraded Ball Float Drain Valve
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, because Exelon did

not identify and correct a condition adverse to quality. Specifically, Exelon did not identify and correct an impaired ball float drain valve that had the potential to adversely impact two safety-related core spray pumps during an internal flooding event. Exelon's short-term corrective actions included entering the issue into their corrective action program, removing the ball float valve impairment to restore functionality, and improving configuration control awareness.

The finding is more than minor because it is associated with the configuration control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the capability, availability and reliability of systems (core spray pumps) that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 - Initial Screening and Characterization of Findings, the finding screened as potentially risk significant. After additional SDP Phase 3 analysis, the team determined the finding was of very low safety significance (Green) because flood mitigation that was impacted by the finding would have minimal impact on redundant equipment required to safely shut down the unit. The performance deficiency had a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program Component, because Exelon did not identify issues completely, accurately, and in a timely manner commensurate with their safety significance. Specifically, Exelon did not identify a degraded condition involving a non-functional ball float drain valve. [IMC 0310, Aspect P.1 (a)]
Inspection Report# : 2010008 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: FIN Finding
Preconditioning of Isolation Condenser Valves Prior to ASME In-service Test
Green: The inspectors identified a Green finding when Exelon cycled valves for maintenance prior to performing scheduled quarterly in-service testing (IST) which resulted in unacceptable preconditioning of valves within the isolation condenser system on April 7. This finding was of very low safety significance and was determined not to be a violation of NRC requirements. Exelon entered this issue into their corrective action system as IR 1053801.

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 ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event.

The performance deficiency had a cross-cutting aspect in the area of human performance because Exelon did not appropriately coordinate work activities to support long term equipment reliability. [H.3(b)]. (Section 1R19)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Core Spray ASME Code Compliance Issues
Green: The inspectors identified a SL IV, Green non-cited violation of 10CFR50.55(a) when Exelon did properly implement the ASME code requirements for the core spray system check valves. Specifically, Exelon did not properly implement the ASME Check Valve Condition Monitoring Program, improperly extended the inspection interval when

working under the condition monitoring program, and did not restore compliance with the ASME code for check valve testing once the condition monitoring program requirements were not met. Exelon entered this issue into their corrective action system as IR 1093256.

This finding is more than minor because it affects the equipment performance attribute of the mitigating system cornerstone to ensure the reliability and availability of the core spray system. Specifically, ASME testing assesses the operational readiness of certain valves required to perform a specific safety function. In accordance with IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event.

The inspectors determined that the finding also involved traditional enforcement because Exelon did not seek NRC approval prior to using alternate means to demonstrate the core spray check valves could perform their intended function, which impacted the regulatory process. In accordance with Supplement I, Reactor Operations, of the NRC Enforcement Policy, the NRC determined that the safety significance of this violation was SL IV because the situation, per example 3 of a SL IV violation, was a matter with more than a minor safety or environmental significance.

This finding has a cross-cutting aspect in the area of human performance because Exelon did not use conservative assumptions in decision making and assumed the core spray system check valves would be in compliance with the ASME code despite using a non-approved testing method (H.1(b)). (Section 1R15)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Preventive Maintenance Procedure Leading to Incomplete Fire Diesel Maintenance
Green. The inspectors identified a Green non-cited violation of Technical Specification 6.8.1 for Exelon's failure to follow MA-MA-716-009, "Preventive Maintenance Work Order Process." Specifically, Exelon closed work order R2120325 without completing the necessary work and did not take action to evaluate the acceptability of this action, contrary to MA-MA-716-009 requirements. Exelon entered this issue into their corrective action program as IRs 1085811 and 1088269 to evaluate the corrective actions needed to address this issue.

This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone and affects the cornerstone objective of ensuring the availability, reliability, and dependability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the fire diesel is the credited backup source of makeup water to the isolation condensers and the failure to perform scheduled preventive maintenance challenges the availability and reliability of the diesel.
This finding affects the fire protection defense-in-depth strategies involving fire suppression and screens to Green using IMC 0609, Appendix F, "Fire Protection Significance Determination Process." Because of the fire diesel function as an isolation condenser makeup source, the inspectors reviewed the Mitigating Systems Cornerstone as well and found it also screened to Green because the finding is not a design or qualification deficiency confirmed not to result in loss of operability, does not represent a loss of system safety function, does not represent the actual loss of safety function of a single train for greater than its allowed outage time, does not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65 for greater than 24 hours, and does not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. This finding has a

cross-cutting aspect in the area of human performance because Exelon personnel did not follow procedures. Specifically, when Exelon did not follow or refer to procedure MA-MA-716-009, "Preventive Maintenance Work Order Process," they did not develop an evaluation to consider the impacts of omitting portions of the work package for the two-year fire diesel preventive maintenance [H.4(b)] [Section 40A2.1.c.(2)]
Inspection Report# : 2010007 *(pdf)*

Barrier Integrity

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions Associated With the Reactor Building to Torus Vacuum Breaker Trip Valve Failures
Green. The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly identify and correct a condition adverse to quality associated with the January 2009 failure of the reactor building to torus vacuum breaker system. Specifically, Exelon did not promptly identify and correct an inadequate instrument air flow capacity condition associated with the reactor building to torus vacuum breaker trip valve. Due to the inadequate corrective actions, the reactor building to torus vacuum breaker system experienced a subsequent failure in April 2009. Exelon entered this issue into their corrective action program as I R 1088325 to evaluate the corrective actions needed to address this issue.

The finding was determined to be more than minor because the performance deficiency was associated with the containment attribute of the barrier integrity cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Barrier Integrity Cornerstone. Specifically, since all four containment barrier screening questions were answered "no," the finding was determined to be of very low safety significance (Green). In addition, the failure did not represent an actual open pathway in the physical integrity of the reactor containment. This finding has a cross-cutting aspect in the area of problem identification and resolution because Exelon failed to thoroughly evaluate the condition adverse to quality and appropriately address the cause. [P.1.(c)] [Section 40A2.1.c.(1)]
Inspection Report# : 2010007 *(pdf)*

Significance: G Apr 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Adjustments to Maintenance Rule System Performance Criteria not made after Biannual Evaluation
The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65(a)(3), requirements for monitoring the effectiveness of maintenance at nuclear power plants (maintenance rule), because Exelon did not make adjustments to established performance and condition monitoring goals to ensure that unavailability and reliability of structures, systems and components (SSC) were appropriately balanced. Specifically, Exelon did not ensure that corrective actions identified in a 2006-2007 (a)(3) evaluation to update performance criteria sheets for maintenance rule systems were adequately implemented. Exelon entered this issue into their corrective action system as IR 1053237.

This finding is not similar to any of the IMC 0612 Appendix E minor examples, but is more than minor because if left uncorrected it would have the potential to lead to a more significant safety concern. Specifically, the failure to implement revised performance criteria could prevent the screening of safety significant systems that have exceeded their performance criteria through a maintenance rule expert panel and prevent Exelon from monitoring degraded components against established goals in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. This finding is not suitable for evaluation using the Significance Determination Process (SDP) because the performance deficiency did not cause the degraded equipment performance. Findings for which the SDP does not apply may be Green or assigned a severity level after NRC management review. Per the guidance provided in NRC inspection procedure 71111.12, this issue is considered to be a Category II finding and thus, per NRC management review, is considered to be Green. This finding has a cross-cutting aspect in the area of problem identification and resolution (P.3(c)). Specifically, Exelon did not ensure that actions identified in the 2006-2007 (a)(3) assessment to update performance criteria sheets for maintenance rule systems were completed and implemented. (Section 1 R12)
Inspection Report# : 2010002 *(pdf)*

Significance: G Apr 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Declare The Rod Worth Minimizer Inoperable At The Time Operability Criteria Was Not Met And Enter The Correct Technical Specification Action Statement
An NRC identified NCV of Technical Specification (TS) 6.8.1, Procedures and Programs, was identified when Exelon did not declare the rod worth minimizer (RWM) inoperable prior to completing the withdrawal of the twelfth rod during a reactor startup on July 15, 2009. During the startup, the RWM exhibited difficulty following the movement of control rods, had difficulty following which control rod was selected, and generated a total of 3 rod blocks even though the physical configuration of the control rod positions was in accordance with the control rod withdrawal sequence. Although operations personnel were aware of these malfunctions of the RWM, they believed that the rod blocks being generated were conservative and did not consider the operability criteria contained in the RWM operating procedure. At the beginning of the withdrawal of the twelfth control rod, the RWM generated an improper rod block and began tracking a control rod that had not been selected or withdrawn. The operators were able to clear the rod block and fully withdraw the rod. The operators declared the RWM inoperable based upon the improper rod block that occurred at the beginning of the withdrawal of the twelfth rod, but entered the TS action statement based upon the time that the operability decision was made, which was after the rod was fully withdrawn. Because of this conclusion, the wrong TS action statement was entered and all actions and limitations associated with the correct TS were not completed. This issue has been entered into Exelon's corrective action program.

The finding was more than minor because it was similar to example 2.g of IMC 0612 Appendix E. Additionally, the finding was more than minor because it was associated with the Design Control attribute of the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding affected the barrier integrity cornerstone and was a fuel barrier issue. The performance deficiency had a cross-cutting aspect in the area of human performance, decision making [H.1(a)]. because Exelon did not make a safety

significant decision using a systematic process when faced with uncertain or unexpected plant conditions. Specifically, Exelon did not consider the operability criteria in procedure 409, "Operation of the Rod Worth Minimizer," when faced with a malfunctioning RWM during the reactor startup on July 15, 2009. (Section 1R15)
Inspection Report# : 2010002 *(pdf)*

Emergency Preparedness

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Adequate Compensatory Actions for the RAGEMS Being Out Of Service
Green: The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.54(q), “Conditions of Licenses,” because Exelon did not properly maintain the conditions of the Oyster Creek Emergency Plan. Specifically, Exelon did not implement timely compensatory actions for the Plan and its implementing procedures when the Oyster Creek main stack radioactive gaseous effluent monitoring system (RAGEMS) was discovered to have a faulted sample supply line. The licensee entered this issue into their corrective action program and implemented corrective actions, including revising site procedures to provide for an alternate sampling plan and the repair of the sample line.

The finding was more than minor because it affected the Emergency Response Organization Performance attribute of the EP Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, “Emergency Preparedness Significance Determination Process,” the inspectors determined the finding to be of very low safety significance (Green), because other methods of performing the dose assessment function were functional while the RAGEMS was unavailable.

The performance deficiency had a cross-cutting aspect in the area of corrective action, because there were indications that the RAGEMS sample line had not been sufficiently repaired, yet Exelon did not implement compensatory actions in a timely manner to assure the RAGEMS dose assessment function was still available. Specifically, the RAGEMS was out of service for 12 days from the time of the sample line defect identification, yet an adequate alternate sampling plan was not in place until 8 days after that discovery [P.1(d)]. (Section 4OA2)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Notify the NRC within the time requirements of 10 CFR 50.72
Green: The NRC identified a Severity Level IV non-cited violation (NCV) of 10 CFR 50.72 when Exelon did not make the required initial notification within 8 hours of the occurrence of the condition. Specifically, on the morning of April 7th, a maintenance technician found the stack radioactive gas effluent monitoring system (RAGEMS) sampling line disconnected, which rendered it inoperable and Exelon did not make the required report until 1535 on April 8. The licensee entered this issue into their corrective action program with an action to review this issue for lessons learned and to incorporate them into an ongoing apparent cause evaluation on technical human performance.

The finding was more than minor because it is similar to inspection manual chapter 0612, appendix E, example 2.d. The finding was determined to be subject to traditional enforcement because the NRC’s ability to perform its regulatory function was potentially impacted by the licensee’s failure to report the event within the eight hour time requirement of 10 CFR 50.72. The finding was determined to be a Severity Level IV violation in accordance with Section D of Supplement I of the NRC Enforcement Policy. The finding was not suitable for evaluation using the significance determination process, but has been reviewed by NRC management and is determined to be a finding of very low safety significance.

This finding has a cross-cutting aspect in the area of human performance, decision-making. Specifically, Exelon's delay in determining that the reported condition of the stack RAGEMS sampling line constituted a loss of monitoring capability did not demonstrate that the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. [H.1(b)]. (Section 4OA3)

Inspection Report# : 2010003 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Significance: G Dec 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Conduct Representative Sampling of Stack Effluents
A Green, self-revealing NCV of Technical Specification 6.8.4 occurred for Exelon's failure to maintain continuous, representative monitoring and sampling of plant stack gaseous effluents, as required by the Offsite Dose Calculation Manual, due to degradation of sample line integrity over the period March 2006 through March 2010. Exelon reported the issue, initiated compensatory monitoring, repaired the stack sample tubing, conducted bounding dose calculations, and entered this issue, including the evaluation of extent-of-condition, into the corrective action program (IR 01053577).

This finding is more than minor because the performance deficiency adversely impacted the Public Cornerstone objective of ensuring adequate protection of public health and safety in that effluent releases were not fully monitored in accordance with applicable requirements to ensure proper quantification and characterization of radioactive releases. This finding was assessed for significance using IMC 0609, Appendix D, and determined to be of very low safety significance because: Exelon was able to re-assess the radioactive effluent using alternative radiation monitoring instrumentation and programs, therefore Exelon had data by which to assess dose to a member of the public, determine the dose impact to the public, and conclude that the doses were less than the dose values in Appendix I to 10 CFR Part 50 and/or 10 CFR 20.1301(e). The cause of this finding is related to the crosscutting area of Human Performance, Resources aspect H.2(c) because procedures were not sufficiently robust for review of reasonableness and consistency of data from samples to support identification of the issue in a timely manner.

Inspection Report# : 2010005 *(pdf)*

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.

Miscellaneous

Last modified : March 03, 2011

Oyster Creek
1Q/2011 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Proper Baseline Data for Service Water Pumps in Accordance with ASME Code
The inspectors identified a Green NCV of 10CFR 50.55a, Codes and Standards, because Exelon did not properly establish baseline reference values for the service water pumps as required by the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for Inservice Testing (lST). Exelon procedure 641.1.001, "Seryice Water Pump Operability and In-Service Test" required the operators to take differential pressure baseline data at three flow rates, while the ASME requirement in subsection ISTB (lST of pumps in light-water reactor power plants) paragraph 4.1, "Preservice Testing" requires that this data be taken at a minimum of five points. Exelon's corrective actions included revising procedure 641.1.001 to be in accordance with the ASME code, rebaselining #1 and #2 service water pumps, and performing an extent of condition review to ensure that all pumps are baselined in accordance with the ASME Code. Exelon entered this issue into the CAP as lR 1175089.

This finding is more than minor because it is similar to IMC 0612 Appendix E minor example 2.cin that the same issue affected both service water pumps and both have experienced degrading performance into the action range. Additionally, the finding is more than minor because if left uncorrected it could have the potential to lead to a more significant safety concern. The inspectors used Inspection Manual Chapter 0609.04, Phase 1 lnitial Screening and Characterization of Findings, to determine that the NCV screened as very low safety significance (Green). This finding is applicable to the lnitiating Events cornerstone as a transient initiator, but screens as Green because the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross-cutting aspect in the area of human performance, resources, where complete, accurate, and upto-date procedures are available and adequate to assure nuclear safety. (1R22)

Inspection Report# : 2011002 *(pdf)*

Significance: G Dec 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Implement Procedures Resulting in Reactor Scram
A Green, self-revealing NCV of Technical Specification 6.8.1.a occurred when Exelon did not adequately implement plant startup procedures which resulted in an automatic reactor scram. Immediate corrective actions included just in time training with all reactor operators, increased management oversight during the subsequent startup, and procedural changes to list all alarms by name that must be cleared prior to raising reactor pressure above 500 psig. Exelon is performing a full root cause evaluation on the event (IR 1155520).

The inspectors determined that the performance deficiency was similar to the “not minor if” statement contained in example 4b of IMC 0612, Appendix E, “Examples of Minor Issues,” because the performance issue resulted in a manual reactor scram. The finding was more than minor in accordance with IMC 0612, Appendix B, “Issue Screening,” because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety

functions during power operation. In accordance with IMC 0609.04 (Table 4a), “Phase 1 – Initial Screen and Characterization of Findings,” the finding was determined to be of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross-cutting aspect in the area of human performance, work practices (H.4(b)), where personnel work practices support human performance. Specifically, Exelon defines and effectively communicates expectations regarding procedural compliance and personnel follow procedures. On December 23, operators did not verify that condenser vacuum was adequate prior to raising reactor pressure above 500 psig contrary to established procedural guidance.

Inspection Report# : 2010005 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: FIN Finding
Failure to Make an Accurate lmmediate Operability Determination
The inspectors identified a finding of very low safety significance (Green) when Exelon did not make an accurate immediate operability determination in accordance with OP-M-108-115 "Operability Determinations" following discovery of a through wall leak in the emergency service water (ESW) pump discharge piping. The finding does not involve enforcement action because no violation of regulatory requirements was identified. Exelon's corrective actions included performing a prompt operability determination which determined that the piping was inoperable, replacing the discharge tee for the 'C' ESW pump, and performing detailed ultrasonic tests on the remaining portions of the ESW piping at the intake structure. Exelon placed this issue in the corrective action program (CAP) as lR 1164020.

The finding is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences, specifically the ESW system piping. In accordance with table 4a of IMC 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because it was not a design or qualification deficiency confirmed not to result in loss of operability or functionality; did not result in a loss of system safety function; did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time; was not an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10CFR50.65 for greater than 24 hours and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance, resources because Exelon did not ensure that procedures were available and adequate to ensure nuclear safety, specifically the accuracy of Attachment 3 to OPAA-108-115 was not adequate to guide a STA/SRO to the proper operability determination when evaluating leakage from an ASME class 1 ,2 or 3 component.
Inspection Report# : 2011002 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Procedures for Responding to the Loss of Control Room Annunciator
The inspectors identified a Green NCV of technical specification 6.8.1.a for Exelon's failure to have written procedures for activities listed in Regulatory Guide 1.33 ,

which includes procedures for abnormal, off-normal, or alarm conditions and procedures for combating emergencies and other significant events. Specifically, Exelon did not have a procedure to cope with a loss of main control room annunciators. Exelon entered this issue into the CAP as lR 1205823.

This finding is not similar to any of the IMC 0612 Appendix E minor examples, but is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used lnspection Manual Chapter 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," because other significance determination process guidance was not suited to provide reasonable estimates of the significance of this inspection finding. With the assistance of NRC management, the inspectors determined that the finding was of very low safety significance (Green) because there was no actual loss of safety system function during the time period the annunciator panels were inoperable. This finding has a cross-cutting aspect in the area of human performance, resources (H.2(c)), where complete, accurate, and up-to-date procedures are available and adequate to assure nuclear safety. (Section 4OA3)
Inspection Report# : 2011002 *(pdf)*

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Snubber Maintenance History Not Taken Into Account When Conducting Service Life Reviews
The inspectors identified a Green non-cited violation of technical specification 4.5.M.1.f, “Snubber Service Life Monitoring”, while inspecting 4 snubber testing failures that occurred during 1R23. Specifically, Exelon’s snubber testing program, contained in SP-1302-52-045, “Requirements for Functional Testing of Snubbers”, does not evaluate snubber maintenance and test records to identify common cause failures of snubbers due to environmental (temperature, vibration, humidity, etc) conditions and adjust snubber service life expectations accordingly so snubber service life reviews can be accomplished effectively without service life affecting reactor operations. Exelon took immediate corrective action to repair or replace the failed snubbers, performed an analysis to ensure the snubber failures had no impact on system operation, and entered this issue into their corrective action program.

There are no similar examples in IMC 0612, Appendix E, “Examples of Minor Issues”. This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone to ensure the availability, reliability and capability of system that respond to initiating events to prevent undesirable consequence, specifically the safety related piping systems in containment. In accordance with table 4a of IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance (Green) because it was a qualification deficiency confirmed not to result in loss of operability or functionality. This finding has a cross-cutting aspect in the area of problem identification and resolution because Exelon did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions. Additionally, Exelon did not conduct effectiveness reviews of corrective actions to ensure that the problems are resolved. (P.1(c)).

Inspection Report# : 2010005 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Scaffold Installation Procedure Not Properly Implemented
The team identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, because Exelon did not properly implement scaffolding control procedural requirements. Specifically, Exelon did not perform engineering evaluations for scaffolding constructed within the minimum allowed distance of safety related equipment to determine its acceptability. Exelon entered the issue into their

corrective action system and remediated each identified scaffold issue in accordance with procedural requirements.

The finding was more than minor because it was associated with the external factors attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 -Initial Screening and Characterization of Findings, the finding was determined to be of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of a systemltrain safety function, and did not screen as potentially risk significant due to external events. The performance deficiency had a cross-cutting aspect in the area of human performance, Work Practices, because Exelon had not effectively communicated expectations regarding procedural compliance. Specifically, Exelon had not followed procedures and obtained engineering evaluations for scaffolds that did not meet the requirements contained in procedures for scaffold installation in the plant. [IMC 0310, Aspect H.4(b)].
Inspection Report# : 2010008 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
EDG Low Voltage Control Cable Submergence
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion III, Design Control. Specifically, Exelon did not maintain safety-related emergency diesel generator (EDG) instrumentation and low voltage control cables in the EDG cable trenches from becoming submerged, which resulted in subjecting the cables to an environment for which they were not qualified. Exelon entered the issue into their corrective action program and determined that there was no impact to EDG operability based on the observed condition of the cables and no apparent signs of degradation. The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, Exelon did not maintain the cables for the EDG 1 and EDG 2 in an environment for which they were designed when the cables were allowed to be submerged in a below grade trench without ensuring adequate drainage. The team determined the finding could be evaluated using the SDP in accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 - Initial Screening and Characterization of Findings. The finding was of very low safety significance because it was a qualification deficiency confirmed not to result in a loss of operability.

The performance deficiency had a cross-cutting aspect in the area of human performance, Resources, because Exelon did not ensure that personnel, equipment, procedures, and other resources were available and adequate to maintain long term plant safety through minimization of long-standing equipment issues. Specifically, Exelon did not correct long-standing deficiencies that allowed debris to block the drains allowing the cables to become submerged. Additionally, procedures were not adequate to ensure that the trenches were inspected and the drains were maintained to ensure that they remained free of debris. [IMC 0310, Aspect H.2.(a)).
Inspection Report# : 2010008 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation

1A2 and 1B2 480 V Load Center Transformer Cooling Fan Testing
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion XI, Test Control, because Exelon had not established a test program for safety-related load center transformer cooling fans to confirm the capability of the fans to cool the load center at its rated output. Specifically, Exelon had not established periodic testing to verify the 1A2 and 1 B2 transformer cooling fans were functional to support the design rating allowed for in operational procedures. This failed to meet the design requirement established in modification package SDD OC-732A, which required in part, that the cooling system fans shall be periodically tested for operability both in the manual and automatic modes. Exelon entered the issue into the corrective action program and tested the fans during the inspection to ensure the fans were operational in the manual mode and would be in a ready to operate status if needed.

The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the lack of testing impacts the objective because there is no method to determine the capability of the fans to support cooling of the transformers at their rated output. The team determined the finding could be evaluated using the SDP in accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1-lnitial Screening and Characterization of Findings. The finding was of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of a system/train safety function, and did not screen as potentially risk significant due to external events. The team did not identify a cross-cutting aspect with this finding because this was an old design/test issue and therefore was not reflective of current performance.
Inspection Report# : 2010008 *(pdf)*

Significance:  Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Core Spray System I Pump Room Degraded Ball Float Drain Valve
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, because Exelon did not identify and correct a condition adverse to quality. Specifically, Exelon did not identify and correct an impaired ball float drain valve that had the potential to adversely impact two safety-related core spray pumps during an internal flooding event. Exelon's short-term corrective actions included entering the issue into their corrective action program, removing the ball float valve impairment to restore functionality, and improving configuration control awareness.

The finding is more than minor because it is associated with the configuration control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the capability, availability and reliability of systems (core spray pumps) that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 - Initial Screening and Characterization of Findings, the finding screened as potentially risk significant. After additional SDP Phase 3 analysis, the team determined the finding was of very low safety significance (Green) because flood mitigation that was impacted by the finding would have minimal impact on redundant equipment required to safely shut down the unit. The performance deficiency had a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program Component, because Exelon did not identify issues completely, accurately, and in a timely manner commensurate with their safety significance. Specifically, Exelon did not identify a

degraded condition involving a non-functional ball float drain valve. [IMC 0310, Aspect P.1 (a)]
Inspection Report# : 2010008 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: FIN Finding
Preconditioning of Isolation Condenser Valves Prior to ASME In-service Test
Green: The inspectors identified a Green finding when Exelon cycled valves for maintenance prior to performing scheduled quarterly in-service testing (IST) which resulted in unacceptable preconditioning of valves within the isolation condenser system on April 7. This finding was of very low safety significance and was determined not to be a violation of NRC requirements. Exelon entered this issue into their corrective action system as IR 1053801.

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 ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event.

The performance deficiency had a cross-cutting aspect in the area of human performance because Exelon did not appropriately coordinate work activities to support long term equipment reliability. [H.3(b)]. (Section 1R19)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Core Spray ASME Code Compliance Issues
Green: The inspectors identified a SL IV, Green non-cited violation of 10CFR50.55(a) when Exelon did properly implement the ASME code requirements for the core spray system check valves. Specifically, Exelon did not properly implement the ASME Check Valve Condition Monitoring Program, improperly extended the inspection interval when working under the condition monitoring program, and did not restore compliance with the ASME code for check valve testing once the condition monitoring program requirements were not met. Exelon entered this issue into their corrective action system as IR 1093256.

This finding is more than minor because it affects the equipment performance attribute of the mitigating system cornerstone to ensure the reliability and availability of the core spray system. Specifically, ASME testing assesses the operational readiness of certain valves required to perform a specific safety function. In accordance with IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event.

The inspectors determined that the finding also involved traditional enforcement because Exelon did not seek NRC approval prior to using alternate means to demonstrate the core spray check valves could perform their intended function, which impacted the regulatory process. In accordance with Supplement I, Reactor Operations, of the NRC Enforcement Policy, the NRC determined that the safety significance of this violation was SL IV because the situation, per example 3 of a SL IV violation, was a matter with more than a minor safety or environmental significance.

This finding has a cross-cutting aspect in the area of human performance because Exelon did not use conservative assumptions in decision making and assumed the core spray system check valves would be in compliance with the ASME code despite using a non-approved testing method (H.1(b)). (Section 1R15)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Preventive Maintenance Procedure Leading to Incomplete Fire Diesel Maintenance
Green. The inspectors identified a Green non-cited violation of Technical Specification 6.8.1 for Exelon's failure to follow MA-MA-716-009, "Preventive Maintenance Work Order Process." Specifically, Exelon closed work order R2120325 without completing the necessary work and did not take action to evaluate the acceptability of this action, contrary to MA-MA-716-009 requirements. Exelon entered this issue into their corrective action program as IRs 1085811 and 1088269 to evaluate the corrective actions needed to address this issue.

This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone and affects the cornerstone objective of ensuring the availability, reliability, and dependability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the fire diesel is the credited backup source of makeup water to the isolation condensers and the failure to perform scheduled preventive maintenance challenges the availability and reliability of the diesel.
This finding affects the fire protection defense-in-depth strategies involving fire suppression and screens to Green using IMC 0609, Appendix F, "Fire Protection Significance Determination Process." Because of the fire diesel function as an isolation condenser makeup source, the inspectors reviewed the Mitigating Systems Cornerstone as well and found it also screened to Green because the finding is not a design or qualification deficiency confirmed not to result in loss of operability, does not represent a loss of system safety function, does not represent the actual loss of safety function of a single train for greater than its allowed outage time, does not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65 for greater than 24 hours, and does not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance because Exelon personnel did not follow procedures. Specifically, when Exelon did not follow or refer to procedure MA-MA-716-009, "Preventive Maintenance Work Order Process," they did not develop an evaluation to consider the impacts of omitting portions of the work package for the two-year fire diesel preventive maintenance [H.4(b)] [Section 40A2.1.c.(2)]
Inspection Report# : 2010007 *(pdf)*

Barrier Integrity

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions Associated With the Reactor Building to Torus Vacuum Breaker Trip Valve Failures
Green. The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly identify and correct a condition adverse to quality associated with the

January 2009 failure of the reactor building to torus vacuum breaker system. Specifically, Exelon did not promptly identify and correct an inadequate instrument air flow capacity condition associated with the reactor building to torus vacuum breaker trip valve. Due to the inadequate corrective actions, the reactor building to torus vacuum breaker system experienced a subsequent failure in April 2009. Exelon entered this issue into their corrective action program as I R 1088325 to evaluate the corrective actions needed to address this issue.

The finding was determined to be more than minor because the performance deficiency was associated with the containment attribute of the barrier integrity cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Barrier Integrity Cornerstone. Specifically, since all four containment barrier screening questions were answered "no," the finding was determined to be of very low safety significance (Green). In addition, the failure did not represent an actual open pathway in the physical integrity of the reactor containment. This finding has a cross-cutting aspect in the area of problem identification and resolution because Exelon failed to thoroughly evaluate the condition adverse to quality and appropriately address the cause. [P.1.(c)] [Section 40A2.1.c.(1)]
Inspection Report# : 2010007 *(pdf)*

Significance:  Apr 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Adjustments to Maintenance Rule System Performance Criteria not made after Biannual Evaluation
The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65(a)(3), requirements for monitoring the effectiveness of maintenance at nuclear power plants (maintenance rule), because Exelon did not make adjustments to established performance and condition monitoring goals to ensure that unavailability and reliability of structures, systems and components (SSC) were appropriately balanced. Specifically, Exelon did not ensure that corrective actions identified in a 2006-2007 (a)(3) evaluation to update performance criteria sheets for maintenance rule systems were adequately implemented. Exelon entered this issue into their corrective action system as IR 1053237.

This finding is not similar to any of the IMC 0612 Appendix E minor examples, but is more than minor because if left uncorrected it would have the potential to lead to a more significant safety concern. Specifically, the failure to implement revised performance criteria could prevent the screening of safety significant systems that have exceeded their performance criteria through a maintenance rule expert panel and prevent Exelon from monitoring degraded components against established goals in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. This finding is not suitable for evaluation using the Significance Determination Process (SDP) because the performance deficiency did not cause the degraded equipment performance. Findings for which the SDP does not apply may be Green or assigned a severity level after NRC management review. Per the guidance provided in NRC inspection procedure 71111.12, this issue is considered to be a Category II finding and thus, per NRC management review, is considered to be Green. This finding has a cross-cutting aspect in the area of problem identification and resolution (P.3(c)). Specifically, Exelon did not ensure that actions identified in the 2006-2007 (a)(3) assessment to update performance criteria sheets for maintenance rule systems were completed and implemented. (Section 1 R12)
Inspection Report# : 2010002 *(pdf)*

Significance: G Apr 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Declare The Rod Worth Minimizer Inoperable At The Time Operability Criteria Was Not Met And Enter The Correct Technical Specification Action Statement
An NRC identified NCV of Technical Specification (TS) 6.8.1, Procedures and Programs, was identified when Exelon did not declare the rod worth minimizer (RWM) inoperable prior to completing the withdrawal of the twelfth rod during a reactor startup on July 15, 2009. During the startup, the RWM exhibited difficulty following the movement of control rods, had difficulty following which control rod was selected, and generated a total of 3 rod blocks even though the physical configuration of the control rod positions was in accordance with the control rod withdrawal sequence. Although operations personnel were aware of these malfunctions of the RWM, they believed that the rod blocks being generated were conservative and did not consider the operability criteria contained in the RWM operating procedure. At the beginning of the withdrawal of the twelfth control rod, the RWM generated an improper rod block and began tracking a control rod that had not been selected or withdrawn. The operators were able to clear the rod block and fully withdraw the rod. The operators declared the RWM inoperable based upon the improper rod block that occurred at the beginning of the withdrawal of the twelfth rod, but entered the TS action statement based upon the time that the operability decision was made, which was after the rod was fully withdrawn. Because of this conclusion, the wrong TS action statement was entered and all actions and limitations associated with the correct TS were not completed. This issue has been entered into Exelon's corrective action program.

The finding was more than minor because it was similar to example 2.g of IMC 0612 Appendix E. Additionally, the finding was more than minor because it was associated with the Design Control attribute of the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. In accordance with IMC 0609.04 (Table 4a), "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because the finding affected the barrier integrity cornerstone and was a fuel barrier issue. The performance deficiency had a cross-cutting aspect in the area of human performance, decision making [H.1(a)]. because Exelon did not make a safety significant decision using a systematic process when faced with uncertain or unexpected plant conditions. Specifically, Exelon did not consider the operability criteria in procedure 409, "Operation of the Rod Worth Minimizer," when faced with a malfunctioning RWM during the reactor startup on July 15, 2009. (Section 1R15)
Inspection Report# : 2010002 *(pdf)*

Emergency Preparedness

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Adequate Compensatory Actions for the RAGEMS Being Out Of Service
Green: The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.54(q), “Conditions of Licenses,” because Exelon did not properly maintain the conditions of the Oyster Creek Emergency Plan. Specifically, Exelon did not implement timely compensatory actions for the Plan and its implementing procedures when the Oyster Creek main stack radioactive gaseous effluent monitoring system (RAGEMS) was discovered to have a faulted sample supply line. The licensee entered this issue into their corrective action program and implemented corrective actions,

including revising site procedures to provide for an alternate sampling plan and the repair of the sample line.

The finding was more than minor because it affected the Emergency Response Organization Performance attribute of the EP Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, "Emergency Preparedness Significance Determination Process," the inspectors determined the finding to be of very low safety significance (Green), because other methods of performing the dose assessment function were functional while the RAGEMS was unavailable.

The performance deficiency had a cross-cutting aspect in the area of corrective action, because there were indications that the RAGEMS sample line had not been sufficiently repaired, yet Exelon did not implement compensatory actions in a timely manner to assure the RAGEMS dose assessment function was still available. Specifically, the RAGEMS was out of service for 12 days from the time of the sample line defect identification, yet an adequate alternate sampling plan was not in place until 8 days after that discovery [P.1(d)]. (Section 4OA2)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Notify the NRC within the time requirements of 10 CFR 50.72
Green: The NRC identified a Severity Level IV non-cited violation (NCV) of 10 CFR 50.72 when Exelon did not make the required initial notification within 8 hours of the occurrence of the condition. Specifically, on the morning of April 7th, a maintenance technician found the stack radioactive gas effluent monitoring system (RAGEMS) sampling line disconnected, which rendered it inoperable and Exelon did not make the required report until 1535 on April 8. The licensee entered this issue into their corrective action program with an action to review this issue for lessons learned and to incorporate them into an ongoing apparent cause evaluation on technical human performance.

The finding was more than minor because it is similar to inspection manual chapter 0612, appendix E, example 2.d. The finding was determined to be subject to traditional enforcement because the NRC's ability to perform its regulatory function was potentially impacted by the licensee's failure to report the event within the eight hour time requirement of 10 CFR 50.72. The finding was determined to be a Severity Level IV violation in accordance with Section D of Supplement I of the NRC Enforcement Policy. The finding was not suitable for evaluation using the significance determination process, but has been reviewed by NRC management and is determined to be a finding of very low safety significance.

This finding has a cross-cutting aspect in the area of human performance, decision-making. Specifically, Exelon's delay in determining that the reported condition of the stack RAGEMS sampling line constituted a loss of monitoring capability did not demonstrate that the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. [H.1(b)]. (Section 4OA3)

Inspection Report# : 2010003 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Significance: G Dec 31, 2010
Identified By: Self-Revealing

Item Type: NCV NonCited Violation
Failure to Conduct Representative Sampling of Stack Effluents
A Green, self-revealing NCV of Technical Specification 6.8.4 occurred for Exelon's failure to maintain continuous, representative monitoring and sampling of plant stack gaseous effluents, as required by the Offsite Dose Calculation Manual, due to degradation of sample line integrity over the period March 2006 through March 2010. Exelon reported the issue, initiated compensatory monitoring, repaired the stack sample tubing, conducted bounding dose calculations, and entered this issue, including the evaluation of extent-of-condition, into the corrective action program (IR 01053577).

This finding is more than minor because the performance deficiency adversely impacted the Public Cornerstone objective of ensuring adequate protection of public health and safety in that effluent releases were not fully monitored in accordance with applicable requirements to ensure proper quantification and characterization of radioactive releases. This finding was assessed for significance using IMC 0609, Appendix D, and determined to be of very low safety significance because: Exelon was able to re-assess the radioactive effluent using alternative radiation monitoring instrumentation and programs, therefore Exelon had data by which to assess dose to a member of the public, determine the dose impact to the public, and conclude that the doses were less than the dose values in Appendix I to 10 CFR Part 50 and/or 10 CFR 20.1301(e). The cause of this finding is related to the crosscutting area of Human Performance, Resources aspect H.2(c) because procedures were not sufficiently robust for review of reasonableness and consistency of data from samples to support identification of the issue in a timely manner.

Inspection Report# : 2010005 *(pdf)*

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.

Miscellaneous

Significance: SL-IV Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Administer Post Event Fitness for Duty Testing
The inspectors identified a Severity Level (SL) lV, non-cited violation (NCV) of 10 CFR 26.31 (c) (3) and Exelon procedure SY-AA-102-202, "Testing For Cause," for failure to administer post-event drug and alcohol testing after a potential substantial degradation of the level of safety of the plant occurred on December, 23,2010. Additionally, the inspectors identified that the licensee failed to administer a post event fatigue assessment per 10 CFR 26.211 (aX3) and Exelon procedure LS-AA-1 19-1001 , "Fatigue Management." Specifically, the inspectors identified that on December, 23, 2010, the licensee failed to conduct post-event drug and alcohol testing, and fatigue assessments of the operators whose human error caused a reactor scram during a reactor startup. Upon identification, the licensee entered this issue into the CAP.

The inspectors determined that the finding involved traditional enforcement because Exelon did not perform 10 CFR 26.31 post event fitness for duty (FFD) testing and 10 CFR 26.211 post event fatigue assessments. lf a licensed operator had tested positive, Exelon would have had to report this to the NRC per 10 CFR26.719 (2xii). Exelon's failure to perform the required testing had the potential to impact the NRC's ability to take action against individual licensed operators, which impacted the regulatory process. In accordance with Section 6.14, "Fitness for Duty," of the NRC Enforcement

Policy, the NRC determined that the safety significance of this violation met the SL lV criteria because the situation, per example 3 of a SL lV violation, was a matter with more than a minor safety or environmental significance. (Section 4OA2)
Inspection Report# : 2011002 *(pdf)*

Last modified : June 07, 2011

Oyster Creek
2Q/2011 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Proper Baseline Data for Service Water Pumps in Accordance with ASME Code
The inspectors identified a Green NCV of 10CFR 50.55a, Codes and Standards, because Exelon did not properly establish baseline reference values for the service water pumps as required by the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for Inservice Testing (lST). Exelon procedure 641.1.001, "Seryice Water Pump Operability and In-Service Test" required the operators to take differential pressure baseline data at three flow rates, while the ASME requirement in subsection ISTB (lST of pumps in light-water reactor power plants) paragraph 4.1, "Preservice Testing" requires that this data be taken at a minimum of five points. Exelon's corrective actions included revising procedure 641.1.001 to be in accordance with the ASME code, rebaselining #1 and #2 service water pumps, and performing an extent of condition review to ensure that all pumps are baselined in accordance with the ASME Code. Exelon entered this issue into the CAP as lR 1175089.

This finding is more than minor because it is similar to IMC 0612 Appendix E minor example 2.cin that the same issue affected both service water pumps and both have experienced degrading performance into the action range. Additionally, the finding is more than minor because if left uncorrected it could have the potential to lead to a more significant safety concern. The inspectors used Inspection Manual Chapter 0609.04, Phase 1 lnitial Screening and Characterization of Findings, to determine that the NCV screened as very low safety significance (Green). This finding is applicable to the lnitiating Events cornerstone as a transient initiator, but screens as Green because the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross-cutting aspect in the area of human performance, resources, where complete, accurate, and upto-date procedures are available and adequate to assure nuclear safety. (1R22)

Inspection Report# : 2011002 *(pdf)*

Significance: G Dec 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Implement Procedures Resulting in Reactor Scram
A Green, self-revealing NCV of Technical Specification 6.8.1.a occurred when Exelon did not adequately implement plant startup procedures which resulted in an automatic reactor scram. Immediate corrective actions included just in time training with all reactor operators, increased management oversight during the subsequent startup, and procedural changes to list all alarms by name that must be cleared prior to raising reactor pressure above 500 psig. Exelon is performing a full root cause evaluation on the event (IR 1155520).

The inspectors determined that the performance deficiency was similar to the “not minor if” statement contained in example 4b of IMC 0612, Appendix E, “Examples of Minor Issues,” because the performance issue resulted in a manual reactor scram. The finding was more than minor in accordance with IMC 0612, Appendix B, “Issue Screening,” because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety

functions during power operation. In accordance with IMC 0609.04 (Table 4a), “Phase 1 – Initial Screen and Characterization of Findings,” the finding was determined to be of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross-cutting aspect in the area of human performance, work practices (H.4(b)), where personnel work practices support human performance. Specifically, Exelon defines and effectively communicates expectations regarding procedural compliance and personnel follow procedures. On December 23, operators did not verify that condenser vacuum was adequate prior to raising reactor pressure above 500 psig contrary to established procedural guidance.

Inspection Report# : 2010005 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform acceptance inspection of contractor work results in damage to safety related instrument cable
The inspectors identified a NCV of 10 CFR Part 50, Appendix B, Criterion X, “Inspection,” when Exelon did not conduct a post maintenance inspection of work accomplished by a contractor on main steam isolation valve (MSIV), V-1-10, which resulted in heat damage to the valve position indication cabling causing a ground on the cable and the receipt of a half scram. Exelon’s corrective actions included replacement of the damaged cable, performance of a work group evaluation and revising the main steam insulation work orders to include a caution to not install insulation on top of cabling.

The finding was more than minor because it affected the design control attribute of the Mitigating Systems Cornerstone of equipment performance to ensure the availability, reliability, and capability of a class I cable. Additionally, this finding is similar to IMC 0612, Appendix E, Example 4.a, in that an evaluation required by procedures was not performed and resulted in a failure in the system. The inspectors evaluated the risk of this finding using IMC 0609, “Significance Determination Process,” Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings.” The inspectors determined that the finding was of very low safety significance (green) because it did not result in an actual loss of function of the MSIV or the reactor protection system. The inspectors determined that this performance deficiency did not involve a cross cutting aspect as it occurred 4 years earlier and is not indicative of current licensee performance. (Section 1R12)

Inspection Report# : 2011003 *(pdf)*

Significance: G Apr 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Control Cables for the Reactor Coolant Inventory Makeup Source Not Protected From Fire Damage
The team identified an NCV of 10 CFR 50, Appendix R, lll.G.2, in that Exelon failed to maintain the credited reactor coolant inventory makeup system free of fire damage in the event of a fire in the 'B' 480 volt (V) switchgear room. Specifically, Exelon failed to assure that the 'A' control rod drive (CRD) pump would remain available during 'B'480V switchgear room fire scenarios. Cables associated with the'A'CRD pump low pressure suction trip are located in the 'B' 480V switchgear room and are not protected by one of the methods specified in 10 CFR 50, Appendix R, Section lll.G.2. Fire damage to these cables could result in the trip of the credited 'A' pump and render it inoperable from the control room. Exelon entered this issue into its corrective action program for long term resolution as lssue Report (lR) 01187591 and promptly established compensatory measures (an hourly fire watch) in the 'B' 480V switchgear room. Exelon also promptly performed an extent of condition review to ensure the 'B' CRD pump was not similarly affected for fire areas that credited its remote operation from the main

control room.

This finding is more than minor because it is associated with the external factors attribute (fire) of the Mitigating Systems Cornerstone and adversely affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the availability of the credited 'A' CRD pump was not ensured for a 'B'480V switchgear room fire scenario. A Senior Reactor Analyst performed a Phase 3 Fire Protection Significance Determination Process analysis and determined that this finding was of very low safety significance (Green). The Phase 3 SDP conservatively assumed the 'A' CRD pump failed for eight separate fire scenarios initiated by electrical ignition sources or transient combustibles. The results of the SDP were largely dominated by the availability of the feedwater and condensate system for reactor coolant inventory control because its circuits were not routed through the 'B' 480V switchgear room. This finding did not have a cross-cutting aspect because the performance deficiency occurred during development of the safe shutdown analysis in the 1980's and is not reflective of current licensee performance.
Inspection Report# : 2011007 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: FIN Finding
Failure to Make an Accurate lmmediate Operability Determination
The inspectors identified a finding of very low safety significance (Green) when Exelon did not make an accurate immediate operability determination in accordance with OP-M-108-115 "Operability Determinations" following discovery of a through wall leak in the emergency service water (ESW) pump discharge piping. The finding does not involve enforcement action because no violation of regulatory requirements was identified. Exelon's corrective actions included performing a prompt operability determination which determined that the piping was inoperable, replacing the discharge tee for the 'C' ESW pump, and performing detailed ultrasonic tests on the remaining portions of the ESW piping at the intake structure. Exelon placed this issue in the corrective action program (CAP) as lR 1164020.

The finding is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences, specifically the ESW system piping. In accordance with table 4a of IMC 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because it was not a design or qualification deficiency confirmed not to result in loss of operability or functionality; did not result in a loss of system safety function; did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time; was not an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10CFR50.65 for greater than 24 hours and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance, resources because Exelon did not ensure that procedures were available and adequate to ensure nuclear safety, specifically the accuracy of Attachment 3 to OPAA-108-115 was not adequate to guide a STA/SRO to the proper operability determination when evaluating leakage from an ASME class 1 ,2 or 3 component.
Inspection Report# : 2011002 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Establish Procedures for Responding to the Loss of Control Room Annunciator
The inspectors identified a Green NCV of technical specification 6.8.1.a for Exelon's failure to have written procedures for activities listed in Regulatory Guide 1.33 , which includes procedures for abnormal, off-normal, or alarm conditions and procedures for combating emergencies and other significant events. Specifically, Exelon did not have a procedure to cope with a loss of main control room annunciators. Exelon entered this issue into the CAP as lR 1205823.

This finding is not similar to any of the IMC 0612 Appendix E minor examples, but is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used lnspection Manual Chapter 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," because other significance determination process guidance was not suited to provide reasonable estimates of the significance of this inspection finding. With the assistance of NRC management, the inspectors determined that the finding was of very low safety significance (Green) because there was no actual loss of safety system function during the time period the annunciator panels were inoperable. This finding has a cross-cutting aspect in the area of human performance, resources (H.2(c)), where complete, accurate, and up-to-date procedures are available and adequate to assure nuclear safety. (Section 4OA3)
Inspection Report# : 2011002 *(pdf)*

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Snubber Maintenance History Not Taken Into Account When Conducting Service Life Reviews
The inspectors identified a Green non-cited violation of technical specification 4.5.M.1.f, “Snubber Service Life Monitoring”, while inspecting 4 snubber testing failures that occurred during 1R23. Specifically, Exelon’s snubber testing program, contained in SP-1302-52-045, “Requirements for Functional Testing of Snubbers”, does not evaluate snubber maintenance and test records to identify common cause failures of snubbers due to environmental (temperature, vibration, humidity, etc) conditions and adjust snubber service life expectations accordingly so snubber service life reviews can be accomplished effectively without service life affecting reactor operations. Exelon took immediate corrective action to repair or replace the failed snubbers, performed an analysis to ensure the snubber failures had no impact on system operation, and entered this issue into their corrective action program.

There are no similar examples in IMC 0612, Appendix E, “Examples of Minor Issues”. This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone to ensure the availability, reliability and capability of system that respond to initiating events to prevent undesirable consequence, specifically the safety related piping systems in containment. In accordance with table 4a of IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance (Green) because it was a qualification deficiency confirmed not to result in loss of operability or functionality. This finding has a cross-cutting aspect in the area of problem identification and resolution because Exelon did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions. Additionally, Exelon did not conduct effectiveness reviews of corrective actions to ensure that the problems are resolved. (P.1(c)).

Inspection Report# : 2010005 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Scaffold Installation Procedure Not Properly Implemented
The team identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, because Exelon did not properly implement scaffolding

control procedural requirements. Specifically, Exelon did not perform engineering evaluations for scaffolding constructed within the minimum allowed distance of safety related equipment to determine its acceptability. Exelon entered the issue into their corrective action system and remediated each identified scaffold issue in accordance with procedural requirements.

The finding was more than minor because it was associated with the external factors attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 -Initial Screening and Characterization of Findings, the finding was determined to be of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of a systemltrain safety function, and did not screen as potentially risk significant due to external events. The performance deficiency had a cross-cutting aspect in the area of human performance, Work Practices, because Exelon had not effectively communicated expectations regarding procedural compliance. Specifically, Exelon had not followed procedures and obtained engineering evaluations for scaffolds that did not meet the requirements contained in procedures for scaffold installation in the plant. [IMC 0310, Aspect H.4(b)].
Inspection Report# : 2010008 *(pdf)*

Significance:  Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
EDG Low Voltage Control Cable Submergence
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion III, Design Control. Specifically, Exelon did not maintain safety-related emergency diesel generator (EDG) instrumentation and low voltage control cables in the EDG cable trenches from becoming submerged, which resulted in subjecting the cables to an environment for which they were not qualified. Exelon entered the issue into their corrective action program and determined that there was no impact to EDG operability based on the observed condition of the cables and no apparent signs of degradation. The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, Exelon did not maintain the cables for the EDG 1 and EDG 2 in an environment for which they were designed when the cables were allowed to be submerged in a below grade trench without ensuring adequate drainage. The team determined the finding could be evaluated using the SDP in accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 - Initial Screening and Characterization of Findings. The finding was of very low safety significance because it was a qualification deficiency confirmed not to result in a loss of operability.

The performance deficiency had a cross-cutting aspect in the area of human performance, Resources, because Exelon did not ensure that personnel, equipment, procedures, and other resources were available and adequate to maintain long term plant safety through minimization of long-standing equipment issues. Specifically, Exelon did not correct long-standing deficiencies that allowed debris to block the drains allowing the cables to become submerged. Additionally, procedures were not adequate to ensure that the trenches were inspected and the drains were maintained to ensure that they remained free of debris. [IMC 0310, Aspect H.2.(a)).
Inspection Report# : 2010008 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
1A2 and 1B2 480 V Load Center Transformer Cooling Fan Testing
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion XI, Test Control, because Exelon had not established a test program for safety-related load center transformer cooling fans to confirm the capability of the fans to cool the load center at its rated output. Specifically, Exelon had not established periodic testing to verify the 1A2 and 1 B2 transformer cooling fans were functional to support the design rating allowed for in operational procedures. This failed to meet the design requirement established in modification package SDD OC-732A, which required in part, that the cooling system fans shall be periodically tested for operability both in the manual and automatic modes. Exelon entered the issue into the corrective action program and tested the fans during the inspection to ensure the fans were operational in the manual mode and would be in a ready to operate status if needed.

The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the lack of testing impacts the objective because there is no method to determine the capability of the fans to support cooling of the transformers at their rated output. The team determined the finding could be evaluated using the SDP in accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1-lnitial Screening and Characterization of Findings. The finding was of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of a system/train safety function, and did not screen as potentially risk significant due to external events. The team did not identify a cross-cutting aspect with this finding because this was an old design/test issue and therefore was not reflective of current performance.
Inspection Report# : 2010008 *(pdf)*

Significance: G Aug 27, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Core Spray System I Pump Room Degraded Ball Float Drain Valve
The team identified a finding of very low safety significance (Green) involving an NCVof 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, because Exelon did not identify and correct a condition adverse to quality. Specifically, Exelon did not identify and correct an impaired ball float drain valve that had the potential to adversely impact two safety-related core spray pumps during an internal flooding event. Exelon's short-term corrective actions included entering the issue into their corrective action program, removing the ball float valve impairment to restore functionality, and improving configuration control awareness.

The finding is more than minor because it is associated with the configuration control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the capability, availability and reliability of systems (core spray pumps) that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, Phase 1 - Initial Screening and Characterization of Findings, the finding screened as potentially risk significant. After additional SDP Phase 3 analysis, the team determined the finding was of very low safety significance (Green) because flood mitigation that was impacted by the finding would have minimal impact on redundant equipment required to

safely shut down the unit. The performance deficiency had a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program Component, because Exelon did not identify issues completely, accurately, and in a timely manner commensurate with their safety significance. Specifically, Exelon did not identify a degraded condition involving a non-functional ball float drain valve. [IMC 0310, Aspect P.1 (a)]
Inspection Report# : 2010008 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: FIN Finding
Preconditioning of Isolation Condenser Valves Prior to ASME In-service Test
Green: The inspectors identified a Green finding when Exelon cycled valves for maintenance prior to performing scheduled quarterly in-service testing (IST) which resulted in unacceptable preconditioning of valves within the isolation condenser system on April 7. This finding was of very low safety significance and was determined not to be a violation of NRC requirements. Exelon entered this issue into their corrective action system as IR 1053801.

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 ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event.

The performance deficiency had a cross-cutting aspect in the area of human performance because Exelon did not appropriately coordinate work activities to support long term equipment reliability. [H.3(b)]. (Section 1R19)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Core Spray ASME Code Compliance Issues
Green: The inspectors identified a SL IV, Green non-cited violation of 10CFR50.55(a) when Exelon did properly implement the ASME code requirements for the core spray system check valves. Specifically, Exelon did not properly implement the ASME Check Valve Condition Monitoring Program, improperly extended the inspection interval when working under the condition monitoring program, and did not restore compliance with the ASME code for check valve testing once the condition monitoring program requirements were not met. Exelon entered this issue into their corrective action system as IR 1093256.

This finding is more than minor because it affects the equipment performance attribute of the mitigating system cornerstone to ensure the reliability and availability of the core spray system. Specifically, ASME testing assesses the operational readiness of certain valves required to perform a specific safety function. In accordance with IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance because it was not a design or qualification deficiency which resulted in a loss of operability or functionality, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time, did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant for greater than 24 hours, and was not potentially risk significant due to a seismic, flooding or severe weather initiating event.

The inspectors determined that the finding also involved traditional enforcement because Exelon did not seek NRC approval prior to using alternate means to demonstrate the core spray check valves could perform their intended

function, which impacted the regulatory process. In accordance with Supplement I, Reactor Operations, of the NRC Enforcement Policy, the NRC determined that the safety significance of this violation was SL IV because the situation, per example 3 of a SL IV violation, was a matter with more than a minor safety or environmental significance.

This finding has a cross-cutting aspect in the area of human performance because Exelon did not use conservative assumptions in decision making and assumed the core spray system check valves would be in compliance with the ASME code despite using a non-approved testing method (H.1(b)). (Section 1R15)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Preventive Maintenance Procedure Leading to Incomplete Fire Diesel Maintenance
Green. The inspectors identified a Green non-cited violation of Technical Specification 6.8.1 for Exelon's failure to follow MA-MA-716-009, "Preventive Maintenance Work Order Process." Specifically, Exelon closed work order R2120325 without completing the necessary work and did not take action to evaluate the acceptability of this action, contrary to MA-MA-716-009 requirements. Exelon entered this issue into their corrective action program as IRs 1085811 and 1088269 to evaluate the corrective actions needed to address this issue.

This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone and affects the cornerstone objective of ensuring the availability, reliability, and dependability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the fire diesel is the credited backup source of makeup water to the isolation condensers and the failure to perform scheduled preventive maintenance challenges the availability and reliability of the diesel.
This finding affects the fire protection defense-in-depth strategies involving fire suppression and screens to Green using IMC 0609, Appendix F, "Fire Protection Significance Determination Process." Because of the fire diesel function as an isolation condenser makeup source, the inspectors reviewed the Mitigating Systems Cornerstone as well and found it also screened to Green because the finding is not a design or qualification deficiency confirmed not to result in loss of operability, does not represent a loss of system safety function, does not represent the actual loss of safety function of a single train for greater than its allowed outage time, does not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65 for greater than 24 hours, and does not screen as potentially risk significant due to seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance because Exelon personnel did not follow procedures. Specifically, when Exelon did not follow or refer to procedure MA-MA-716-009, "Preventive Maintenance Work Order Process," they did not develop an evaluation to consider the impacts of omitting portions of the work package for the two-year fire diesel preventive maintenance [H.4(b)] [Section 40A2.1.c.(2)]
Inspection Report# : 2010007 *(pdf)*

Barrier Integrity

Significance: G Apr 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
B.5.b. Phase 2 and 3 Mitigating Strategy

This finding, affecting the Barrier Integrity Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has a cross-cutting aspect in the area of H.2.(C). See inspection report for more details.
Inspection Report# : 2011009 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions Associated With the Reactor Building to Torus Vacuum Breaker Trip Valve Failures
Green. The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly identify and correct a condition adverse to quality associated with the January 2009 failure of the reactor building to torus vacuum breaker system. Specifically, Exelon did not promptly identify and correct an inadequate instrument air flow capacity condition associated with the reactor building to torus vacuum breaker trip valve. Due to the inadequate corrective actions, the reactor building to torus vacuum breaker system experienced a subsequent failure in April 2009. Exelon entered this issue into their corrective action program as I R 1088325 to evaluate the corrective actions needed to address this issue.

The finding was determined to be more than minor because the performance deficiency was associated with the containment attribute of the barrier integrity cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Barrier Integrity Cornerstone. Specifically, since all four containment barrier screening questions were answered "no," the finding was determined to be of very low safety significance (Green). In addition, the failure did not represent an actual open pathway in the physical integrity of the reactor containment. This finding has a cross-cutting aspect in the area of problem identification and resolution because Exelon failed to thoroughly evaluate the condition adverse to quality and appropriately address the cause. [P.1.(c)] [Section 40A2.1.c.(1)]
Inspection Report# : 2010007 *(pdf)*

Emergency Preparedness

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Adequate Compensatory Actions for the RAGEMS Being Out Of Service
Green: The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.54(q), “Conditions of Licenses,” because Exelon did not properly maintain the conditions of the Oyster Creek Emergency Plan. Specifically, Exelon did not implement timely compensatory actions for the Plan and its implementing procedures when the Oyster Creek main stack radioactive gaseous effluent monitoring system (RAGEMS) was discovered to have a faulted sample supply line. The licensee entered this issue into their corrective action program and implemented corrective actions, including revising site procedures to provide for an alternate sampling plan and the repair of the sample line.

The finding was more than minor because it affected the Emergency Response Organization Performance attribute of the EP Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the public

health and safety in the event of a radiological emergency. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, “Emergency Preparedness Significance Determination Process,” the inspectors determined the finding to be of very low safety significance (Green), because other methods of performing the dose assessment function were functional while the RAGEMS was unavailable.

The performance deficiency had a cross-cutting aspect in the area of corrective action, because there were indications that the RAGEMS sample line had not been sufficiently repaired, yet Exelon did not implement compensatory actions in a timely manner to assure the RAGEMS dose assessment function was still available. Specifically, the RAGEMS was out of service for 12 days from the time of the sample line defect identification, yet an adequate alternate sampling plan was not in place until 8 days after that discovery [P.1(d)]. (Section 4OA2)

Inspection Report# : 2010003 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Notify the NRC within the time requirements of 10 CFR 50.72
Green: The NRC identified a Severity Level IV non-cited violation (NCV) of 10 CFR 50.72 when Exelon did not make the required initial notification within 8 hours of the occurrence of the condition. Specifically, on the morning of April 7th, a maintenance technician found the stack radioactive gas effluent monitoring system (RAGEMS) sampling line disconnected, which rendered it inoperable and Exelon did not make the required report until 1535 on April 8. The licensee entered this issue into their corrective action program with an action to review this issue for lessons learned and to incorporate them into an ongoing apparent cause evaluation on technical human performance.

The finding was more than minor because it is similar to inspection manual chapter 0612, appendix E, example 2.d. The finding was determined to be subject to traditional enforcement because the NRC’s ability to perform its regulatory function was potentially impacted by the licensee’s failure to report the event within the eight hour time requirement of 10 CFR 50.72. The finding was determined to be a Severity Level IV violation in accordance with Section D of Supplement I of the NRC Enforcement Policy. The finding was not suitable for evaluation using the significance determination process, but has been reviewed by NRC management and is determined to be a finding of very low safety significance.

This finding has a cross-cutting aspect in the area of human performance, decision-making. Specifically, Exelon’s delay in determining that the reported condition of the stack RAGEMS sampling line constituted a loss of monitoring capability did not demonstrate that the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. [H.1(b)]. (Section 4OA3)

Inspection Report# : 2010003 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Significance: G Dec 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Conduct Representative Sampling of Stack Effluents
A Green, self-revealing NCV of Technical Specification 6.8.4 occurred for Exelon’s failure to maintain continuous, representative monitoring and sampling of plant stack gaseous effluents, as required by the Offsite Dose Calculation

Manual, due to degradation of sample line integrity over the period March 2006 through March 2010. Exelon reported the issue, initiated compensatory monitoring, repaired the stack sample tubing, conducted bounding dose calculations, and entered this issue, including the evaluation of extent-of-condition, into the corrective action program (IR 01053577).

This finding is more than minor because the performance deficiency adversely impacted the Public Cornerstone objective of ensuring adequate protection of public health and safety in that effluent releases were not fully monitored in accordance with applicable requirements to ensure proper quantification and characterization of radioactive releases. This finding was assessed for significance using IMC 0609, Appendix D, and determined to be of very low safety significance because: Exelon was able to re-assess the radioactive effluent using alternative radiation monitoring instrumentation and programs, therefore Exelon had data by which to assess dose to a member of the public, determine the dose impact to the public, and conclude that the doses were less than the dose values in Appendix I to 10 CFR Part 50 and/or 10 CFR 20.1301(e). The cause of this finding is related to the crosscutting area of Human Performance, Resources aspect H.2(c) because procedures were not sufficiently robust for review of reasonableness and consistency of data from samples to support identification of the issue in a timely manner.

Inspection Report# : 2010005 *(pdf)*

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.

Miscellaneous

Significance: SL-IV Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Administer Post Event Fitness for Duty Testing
The inspectors identified a Severity Level (SL) lV, non-cited violation (NCV) of 10 CFR 26.31 (c) (3) and Exelon procedure SY-AA-102-202, "Testing For Cause," for failure to administer post-event drug and alcohol testing after a potential substantial degradation of the level of safety of the plant occurred on December, 23,2010. Additionally, the inspectors identified that the licensee failed to administer a post event fatigue assessment per 10 CFR 26.211 (aX3) and Exelon procedure LS-AA-1 19-1001 , "Fatigue Management." Specifically, the inspectors identified that on December, 23, 2010, the licensee failed to conduct post-event drug and alcohol testing, and fatigue assessments of the operators whose human error caused a reactor scram during a reactor startup. Upon identification, the licensee entered this issue into the CAP.

The inspectors determined that the finding involved traditional enforcement because Exelon did not perform 10 CFR 26.31 post event fitness for duty (FFD) testing and 10 CFR 26.211 post event fatigue assessments. lf a licensed operator had tested positive, Exelon would have had to report this to the NRC per 10 CFR26.719 (2xii). Exelon's failure to perform the required testing had the potential to impact the NRC's ability to take action against individual licensed operators, which impacted the regulatory process. In accordance with Section 6.14, "Fitness for Duty," of the NRC Enforcement Policy, the NRC determined that the safety significance of this violation met the SL lV criteria because the situation, per example 3 of a SL lV violation, was a matter with more than a minor safety or environmental significance. (Section 4OA2)
Inspection Report# : 2011002 *(pdf)*

Last modified : October 14, 2011

Oyster Creek
3Q/2011 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Proper Baseline Data for Service Water Pumps in Accordance with ASME Code
The inspectors identified a Green NCV of 10CFR 50.55a, Codes and Standards, because Exelon did not properly establish baseline reference values for the service water pumps as required by the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for Inservice Testing (lST). Exelon procedure 641.1.001, "Seryice Water Pump Operability and In-Service Test" required the operators to take differential pressure baseline data at three flow rates, while the ASME requirement in subsection ISTB (lST of pumps in light-water reactor power plants) paragraph 4.1, "Preservice Testing" requires that this data be taken at a minimum of five points. Exelon's corrective actions included revising procedure 641.1.001 to be in accordance with the ASME code, rebaselining #1 and #2 service water pumps, and performing an extent of condition review to ensure that all pumps are baselined in accordance with the ASME Code. Exelon entered this issue into the CAP as lR 1175089.

This finding is more than minor because it is similar to IMC 0612 Appendix E minor example 2.cin that the same issue affected both service water pumps and both have experienced degrading performance into the action range. Additionally, the finding is more than minor because if left uncorrected it could have the potential to lead to a more significant safety concern. The inspectors used Inspection Manual Chapter 0609.04, Phase 1 lnitial Screening and Characterization of Findings, to determine that the NCV screened as very low safety significance (Green). This finding is applicable to the lnitiating Events cornerstone as a transient initiator, but screens as Green because the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross-cutting aspect in the area of human performance, resources, where complete, accurate, and upto-date procedures are available and adequate to assure nuclear safety. (1R22)

Inspection Report# : 2011002 *(pdf)*

Significance: G Dec 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Implement Procedures Resulting in Reactor Scram
A Green, self-revealing NCV of Technical Specification 6.8.1.a occurred when Exelon did not adequately implement plant startup procedures which resulted in an automatic reactor scram. Immediate corrective actions included just in time training with all reactor operators, increased management oversight during the subsequent startup, and procedural changes to list all alarms by name that must be cleared prior to raising reactor pressure above 500 psig. Exelon is performing a full root cause evaluation on the event (IR 1155520).

The inspectors determined that the performance deficiency was similar to the “not minor if” statement contained in example 4b of IMC 0612, Appendix E, “Examples of Minor Issues,” because the performance issue resulted in a manual reactor scram. The finding was more than minor in accordance with IMC 0612, Appendix B, “Issue Screening,” because it was associated with the equipment performance attribute of the initiating events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety

functions during power operation. In accordance with IMC 0609.04 (Table 4a), “Phase 1 – Initial Screen and Characterization of Findings,” the finding was determined to be of very low safety significance (Green) because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross-cutting aspect in the area of human performance, work practices (H.4(b)), where personnel work practices support human performance. Specifically, Exelon defines and effectively communicates expectations regarding procedural compliance and personnel follow procedures. On December 23, operators did not verify that condenser vacuum was adequate prior to raising reactor pressure above 500 psig contrary to established procedural guidance.

Inspection Report# : 2010005 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform acceptance inspection of contractor work results in damage to safety related instrument cable
The inspectors identified a NCV of 10 CFR Part 50, Appendix B, Criterion X, “Inspection,” when Exelon did not conduct a post maintenance inspection of work accomplished by a contractor on main steam isolation valve (MSIV), V-1-10, which resulted in heat damage to the valve position indication cabling causing a ground on the cable and the receipt of a half scram. Exelon’s corrective actions included replacement of the damaged cable, performance of a work group evaluation and revising the main steam insulation work orders to include a caution to not install insulation on top of cabling.

The finding was more than minor because it affected the design control attribute of the Mitigating Systems Cornerstone of equipment performance to ensure the availability, reliability, and capability of a class I cable. Additionally, this finding is similar to IMC 0612, Appendix E, Example 4.a, in that an evaluation required by procedures was not performed and resulted in a failure in the system. The inspectors evaluated the risk of this finding using IMC 0609, “Significance Determination Process,” Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings.” The inspectors determined that the finding was of very low safety significance (green) because it did not result in an actual loss of function of the MSIV or the reactor protection system. The inspectors determined that this performance deficiency did not involve a cross cutting aspect as it occurred 4 years earlier and is not indicative of current licensee performance. (Section 1R12)

Inspection Report# : 2011003 *(pdf)*

Significance: G Apr 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Control Cables for the Reactor Coolant Inventory Makeup Source Not Protected From Fire Damage
The team identified an NCV of 10 CFR 50, Appendix R, lll.G.2, in that Exelon failed to maintain the credited reactor coolant inventory makeup system free of fire damage in the event of a fire in the 'B' 480 volt (V) switchgear room. Specifically, Exelon failed to assure that the 'A' control rod drive (CRD) pump would remain available during 'B'480V switchgear room fire scenarios. Cables associated with the'A'CRD pump low pressure suction trip are located in the 'B' 480V switchgear room and are not protected by one of the methods specified in 10 CFR 50, Appendix R, Section lll.G.2. Fire damage to these cables could result in the trip of the credited 'A' pump and render it inoperable from the control room. Exelon entered this issue into its corrective action program for long term resolution as lssue Report (lR) 01187591 and promptly established compensatory measures (an hourly fire watch) in the 'B' 480V switchgear room. Exelon also promptly performed an extent of condition review to ensure the 'B' CRD pump was not similarly affected for fire areas that credited its remote operation from the main

control room.

This finding is more than minor because it is associated with the external factors attribute (fire) of the Mitigating Systems Cornerstone and adversely affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the availability of the credited 'A' CRD pump was not ensured for a 'B'480V switchgear room fire scenario. A Senior Reactor Analyst performed a Phase 3 Fire Protection Significance Determination Process analysis and determined that this finding was of very low safety significance (Green). The Phase 3 SDP conservatively assumed the 'A' CRD pump failed for eight separate fire scenarios initiated by electrical ignition sources or transient combustibles. The results of the SDP were largely dominated by the availability of the feedwater and condensate system for reactor coolant inventory control because its circuits were not routed through the 'B' 480V switchgear room. This finding did not have a cross-cutting aspect because the performance deficiency occurred during development of the safe shutdown analysis in the 1980's and is not reflective of current licensee performance.
Inspection Report# : 2011007 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: FIN Finding
Failure to Make an Accurate lmmediate Operability Determination
The inspectors identified a finding of very low safety significance (Green) when Exelon did not make an accurate immediate operability determination in accordance with OP-M-108-115 "Operability Determinations" following discovery of a through wall leak in the emergency service water (ESW) pump discharge piping. The finding does not involve enforcement action because no violation of regulatory requirements was identified. Exelon's corrective actions included performing a prompt operability determination which determined that the piping was inoperable, replacing the discharge tee for the 'C' ESW pump, and performing detailed ultrasonic tests on the remaining portions of the ESW piping at the intake structure. Exelon placed this issue in the corrective action program (CAP) as lR 1164020.

The finding is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences, specifically the ESW system piping. In accordance with table 4a of IMC 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because it was not a design or qualification deficiency confirmed not to result in loss of operability or functionality; did not result in a loss of system safety function; did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time; was not an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10CFR50.65 for greater than 24 hours and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance, resources because Exelon did not ensure that procedures were available and adequate to ensure nuclear safety, specifically the accuracy of Attachment 3 to OPAA-108-115 was not adequate to guide a STA/SRO to the proper operability determination when evaluating leakage from an ASME class 1 ,2 or 3 component.
Inspection Report# : 2011002 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Establish Procedures for Responding to the Loss of Control Room Annunciator
The inspectors identified a Green NCV of technical specification 6.8.1.a for Exelon's failure to have written procedures for activities listed in Regulatory Guide 1.33 , which includes procedures for abnormal, off-normal, or alarm conditions and procedures for combating emergencies and other significant events. Specifically, Exelon did not have a procedure to cope with a loss of main control room annunciators. Exelon entered this issue into the CAP as lR 1205823.

This finding is not similar to any of the IMC 0612 Appendix E minor examples, but is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used lnspection Manual Chapter 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," because other significance determination process guidance was not suited to provide reasonable estimates of the significance of this inspection finding. With the assistance of NRC management, the inspectors determined that the finding was of very low safety significance (Green) because there was no actual loss of safety system function during the time period the annunciator panels were inoperable. This finding has a cross-cutting aspect in the area of human performance, resources (H.2(c)), where complete, accurate, and up-to-date procedures are available and adequate to assure nuclear safety. (Section 4OA3)
Inspection Report# : 2011002 *(pdf)*

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Snubber Maintenance History Not Taken Into Account When Conducting Service Life Reviews
The inspectors identified a Green non-cited violation of technical specification 4.5.M.1.f, “Snubber Service Life Monitoring”, while inspecting 4 snubber testing failures that occurred during 1R23. Specifically, Exelon’s snubber testing program, contained in SP-1302-52-045, “Requirements for Functional Testing of Snubbers”, does not evaluate snubber maintenance and test records to identify common cause failures of snubbers due to environmental (temperature, vibration, humidity, etc) conditions and adjust snubber service life expectations accordingly so snubber service life reviews can be accomplished effectively without service life affecting reactor operations. Exelon took immediate corrective action to repair or replace the failed snubbers, performed an analysis to ensure the snubber failures had no impact on system operation, and entered this issue into their corrective action program.

There are no similar examples in IMC 0612, Appendix E, “Examples of Minor Issues”. This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone to ensure the availability, reliability and capability of system that respond to initiating events to prevent undesirable consequence, specifically the safety related piping systems in containment. In accordance with table 4a of IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to be of very low safety significance (Green) because it was a qualification deficiency confirmed not to result in loss of operability or functionality. This finding has a cross-cutting aspect in the area of problem identification and resolution because Exelon did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions. Additionally, Exelon did not conduct effectiveness reviews of corrective actions to ensure that the problems are resolved. (P.1(c)).

Inspection Report# : 2010005 *(pdf)*

Barrier Integrity

Significance: G Apr 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation

B.5.b. Phase 2 and 3 Mitigating Strategy
This finding, affecting the Barrier Integrity Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has a cross-cutting aspect in the area of H.2.(C). See inspection report for more details.
Inspection Report# : 2011009 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance: G Dec 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Conduct Representative Sampling of Stack Effluents
A Green, self-revealing NCV of Technical Specification 6.8.4 occurred for Exelon's failure to maintain continuous, representative monitoring and sampling of plant stack gaseous effluents, as required by the Offsite Dose Calculation Manual, due to degradation of sample line integrity over the period March 2006 through March 2010. Exelon reported the issue, initiated compensatory monitoring, repaired the stack sample tubing, conducted bounding dose calculations, and entered this issue, including the evaluation of extent-of-condition, into the corrective action program (IR 01053577).

This finding is more than minor because the performance deficiency adversely impacted the Public Cornerstone objective of ensuring adequate protection of public health and safety in that effluent releases were not fully monitored in accordance with applicable requirements to ensure proper quantification and characterization of radioactive releases. This finding was assessed for significance using IMC 0609, Appendix D, and determined to be of very low safety significance because: Exelon was able to re-assess the radioactive effluent using alternative radiation monitoring instrumentation and programs, therefore Exelon had data by which to assess dose to a member of the public, determine the dose impact to the public, and conclude that the doses were less than the dose values in Appendix I to 10 CFR Part 50 and/or 10 CFR 20.1301(e). The cause of this finding is related to the crosscutting area of Human Performance, Resources aspect H.2(c) because procedures were not sufficiently robust for review of reasonableness and consistency of data from samples to support identification of the issue in a timely manner.

Inspection Report# : 2010005 *(pdf)*

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.

Miscellaneous

Significance: SL-IV Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Administer Post Event Fitness for Duty Testing
The inspectors identified a Severity Level (SL) lV, non-cited violation (NCV) of 10 CFR 26.31 (c) (3) and Exelon procedure SY-AA-102-202, "Testing For Cause," for failure to administer post-event drug and alcohol testing after a potential substantial degradation of the level of safety of the plant occurred on December, 23,2010. Additionally, the inspectors identified that the licensee failed to administer a post event fatigue assessment per 10 CFR 26.211 (aX3) and Exelon procedure LS-AA-1 19-1001 , "Fatigue Management." Specifically, the inspectors identified that on December, 23, 2010, the licensee failed to conduct post-event drug and alcohol testing, and fatigue assessments of the operators whose human error caused a reactor scram during a reactor startup. Upon identification, the licensee entered this issue into the CAP.

The inspectors determined that the finding involved traditional enforcement because Exelon did not perform 10 CFR 26.31 post event fitness for duty (FFD) testing and 10 CFR 26.211 post event fatigue assessments. lf a licensed operator had tested positive, Exelon would have had to report this to the NRC per 10 CFR26.719 (2xii). Exelon's failure to perform the required testing had the potential to impact the NRC's ability to take action against individual licensed operators, which impacted the regulatory process. In accordance with Section 6.14, "Fitness for Duty," of the NRC Enforcement Policy, the NRC determined that the safety significance of this violation met the SL lV criteria because the situation, per example 3 of a SL lV violation, was a matter with more than a minor safety or environmental significance. (Section 4OA2)
Inspection Report# : 2011002 *(pdf)*

Last modified : January 04, 2012

Oyster Creek
4Q/2011 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Proper Baseline Data for Service Water Pumps in Accordance with ASME Code
The inspectors identified a Green NCV of 10CFR 50.55a, Codes and Standards, because Exelon did not properly establish baseline reference values for the service water pumps as required by the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for Inservice Testing (lST). Exelon procedure 641.1.001, "Seryice Water Pump Operability and In-Service Test" required the operators to take differential pressure baseline data at three flow rates, while the ASME requirement in subsection ISTB (lST of pumps in light-water reactor power plants) paragraph 4.1, "Preservice Testing" requires that this data be taken at a minimum of five points. Exelon's corrective actions included revising procedure 641.1.001 to be in accordance with the ASME code, rebaselining #1 and #2 service water pumps, and performing an extent of condition review to ensure that all pumps are baselined in accordance with the ASME Code. Exelon entered this issue into the CAP as lR 1175089.

This finding is more than minor because it is similar to IMC 0612 Appendix E minor example 2.cin that the same issue affected both service water pumps and both have experienced degrading performance into the action range. Additionally, the finding is more than minor because if left uncorrected it could have the potential to lead to a more significant safety concern. The inspectors used Inspection Manual Chapter 0609.04, Phase 1 lnitial Screening and Characterization of Findings, to determine that the NCV screened as very low safety significance (Green). This finding is applicable to the lnitiating Events cornerstone as a transient initiator, but screens as Green because the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross-cutting aspect in the area of human performance, resources, where complete, accurate, and upto-date procedures are available and adequate to assure nuclear safety. (1R22)

Inspection Report# : 2011002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish New Reference Values in Accordance with ASME Code
Green. The inspectors identified a Green NCV of 10 CFR Part 50.55a, Codes and Standards, because Exelon did not complete an adequate analysis when establishing a new reference value for the A containment spray pump in accordance with the American Society of Mechanical Engineer (ASME) Operation and Maintenance (OM) Code Subsection ISTB 4.6. The inspectors determined that Exelon’s failure to correctly establish a new reference value for the A containment spray pump in accordance with the requirements of ASME OM Code Subsection ISTB 4.6 was a performance deficiency. Exelon entered this issue into the corrective action program for resolution as IR 1281326.

This finding is more than minor because it is similar to IMC 0612 Appendix C Example 3.j in that there was a reasonable doubt that the system met ASME operability requirements due to the inadequate evaluation. Additionally, the inspectors determined that this issue was more than minor because it affected the procedure quality attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, the finding is considered to be of very low safety significance.
This finding has a cross-cutting aspect in the area of Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, because Exelon did not fully follow the ASME requirements in Subsection ISTB 4.6, New Reference Values.

Inspection Report# : 2011005 *(pdf)*

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform acceptance inspection of contractor work results in damage to safety related instrument cable
The inspectors identified a NCV of 10 CFR Part 50, Appendix B, Criterion X, “Inspection,” when Exelon did not conduct a post maintenance inspection of work accomplished by a contractor on main steam isolation valve (MSIV), V-1-10, which resulted in heat damage to the valve position indication cabling causing a ground on the cable and the receipt of a half scram. Exelon’s corrective actions included replacement of the damaged cable, performance of a work group evaluation and revising the main steam insulation work orders to include a caution to not install insulation on top of cabling.

The finding was more than minor because it affected the design control attribute of the Mitigating Systems Cornerstone of equipment performance to ensure the availability, reliability, and capability of a class I cable. Additionally, this finding is similar to IMC 0612, Appendix E, Example 4.a, in that an evaluation required by procedures was not performed and resulted in a failure in the system. The inspectors evaluated the risk of this finding using IMC 0609, “Significance Determination Process,” Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings.” The inspectors determined that the finding was of very low safety significance (green) because it did not result in an actual loss of function of the MSIV or the reactor protection system. The inspectors determined that this performance deficiency did not involve a cross cutting aspect as it occurred 4 years earlier and is not indicative of current licensee performance. (Section 1R12)

Inspection Report# : 2011003 *(pdf)*

Significance: G Apr 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Control Cables for the Reactor Coolant Inventory Makeup Source Not Protected From Fire Damage
The team identified an NCV of 10 CFR 50, Appendix R, lll.G.2, in that Exelon failed to maintain the credited reactor coolant inventory makeup system free of fire damage in the event of a fire in the 'B' 480 volt (V) switchgear room. Specifically, Exelon failed to assure that the 'A' control rod drive (CRD) pump would remain available during 'B'480V switchgear room fire scenarios. Cables associated with the'A'CRD pump low pressure suction trip are located in the 'B' 480V switchgear room and are not protected by one of the methods specified in 10 CFR 50, Appendix R, Section lll.G.2. Fire damage to these cables could result in the trip of the credited 'A' pump and render it inoperable from the control room. Exelon entered this issue into its corrective action program for long term resolution as lssue Report (lR) 01187591 and promptly established compensatory measures (an hourly fire watch) in the 'B' 480V switchgear

room. Exelon also promptly performed an extent of condition review to ensure the 'B' CRD pump was not similarly affected for fire areas that credited its remote operation from the main control room.

This finding is more than minor because it is associated with the external factors attribute (fire) of the Mitigating Systems Cornerstone and adversely affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the availability of the credited 'A' CRD pump was not ensured for a 'B'480V switchgear room fire scenario. A Senior Reactor Analyst performed a Phase 3 Fire Protection Significance Determination Process analysis and determined that this finding was of very low safety significance (Green). The Phase 3 SDP conservatively assumed the 'A' CRD pump failed for eight separate fire scenarios initiated by electrical ignition sources or transient combustibles. The results of the SDP were largely dominated by the availability of the feedwater and condensate system for reactor coolant inventory control because its circuits were not routed through the 'B' 480V switchgear room. This finding did not have a cross-cutting aspect because the performance deficiency occurred during development of the safe shutdown analysis in the 1980's and is not reflective of current licensee performance.
Inspection Report# : 2011007 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: FIN Finding
Failure to Make an Accurate lmmediate Operability Determination
The inspectors identified a finding of very low safety significance (Green) when Exelon did not make an accurate immediate operability determination in accordance with OP-M-108-115 "Operability Determinations" following discovery of a through wall leak in the emergency service water (ESW) pump discharge piping. The finding does not involve enforcement action because no violation of regulatory requirements was identified. Exelon's corrective actions included performing a prompt operability determination which determined that the piping was inoperable, replacing the discharge tee for the 'C' ESW pump, and performing detailed ultrasonic tests on the remaining portions of the ESW piping at the intake structure. Exelon placed this issue in the corrective action program (CAP) as lR 1164020.

The finding is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences, specifically the ESW system piping. In accordance with table 4a of IMC 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance (Green) because it was not a design or qualification deficiency confirmed not to result in loss of operability or functionality; did not result in a loss of system safety function; did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time; was not an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10CFR50.65 for greater than 24 hours and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance, resources because Exelon did not ensure that procedures were available and adequate to ensure nuclear safety, specifically the accuracy of Attachment 3 to OPAA-108-115 was not adequate to guide a STA/SRO to the proper operability determination when evaluating leakage from an ASME class 1 ,2 or 3 component.
Inspection Report# : 2011002 *(pdf)*

Significance: G Mar 31, 2011

Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Procedures for Responding to the Loss of Control Room Annunciator
The inspectors identified a Green NCV of technical specification 6.8.1.a for Exelon's failure to have written procedures for activities listed in Regulatory Guide 1.33 , which includes procedures for abnormal, off-normal, or alarm conditions and procedures for combating emergencies and other significant events. Specifically, Exelon did not have a procedure to cope with a loss of main control room annunciators. Exelon entered this issue into the CAP as lR 1205823.

This finding is not similar to any of the IMC 0612 Appendix E minor examples, but is more than minor because it affects the procedure quality attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used lnspection Manual Chapter 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," because other significance determination process guidance was not suited to provide reasonable estimates of the significance of this inspection finding. With the assistance of NRC management, the inspectors determined that the finding was of very low safety significance (Green) because there was no actual loss of safety system function during the time period the annunciator panels were inoperable. This finding has a cross-cutting aspect in the area of human performance, resources (H.2(c)), where complete, accurate, and up-to-date procedures are available and adequate to assure nuclear safety. (Section 4OA3)
Inspection Report# : 2011002 *(pdf)*

Barrier Integrity

Significance: G Apr 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
B.5.b. Phase 2 and 3 Mitigating Strategy
This finding, affecting the Barrier Integrity Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has a cross-cutting aspect in the area of H.2.(C). See inspection report for more details.
Inspection Report# : 2011009 *(pdf)*

Emergency Preparedness

Significance: G Aug 15, 2011
Identified By: NRC
Item Type: FIN Finding
Changes to EAL Basis Decreased the Effectiveness of the Plan without Prior NRC Approval
In response to the NCV and finding, Exelon entered the issue into their corrective action program as IR 01184333 and subsequently implemented Revision 3 of the Oyster Creek Emergency Plan, which restored the EAL HU6 Basis to the Revision 10 (of the pre-Exelon Revision 0 Emergency Plan) guidance, thereby removing the decrease in effectiveness. The inspectors reviewed IR 01184333 and the revised version of the HU6 Basis, and discussed the corrective actions with the Oyster Creek Emergency Preparedness staff.
Closed in IR 2011005.

Inspection Report# : 2011005 *(pdf)*
Inspection Report# : 2011503 *(pdf)*

Significance: G Aug 15, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Traditional Enforcement Changes to EAL Basis Decreased the Effectiveness of the Plan without Prior NRC Approval
Severitv Level lV/Green: The inspector identified a finding of very low safety significance involving a Severity Level lV NCV of 10 CFR 50.54(q) for failing to obtain prior approval for an emergency plan change which decreased the effectiveness of the plan. Specifically, the licensee modified the Emergency Action Level (EAL) Basis in EAL HU6, which indefinitely extended the start of the 1S-minute emergency classification clock beyond a credible notification that a fire is occurring or indication of a valid fire detection system alarm. This change decreased the effectiveness of the emergency plan by reducing the capability to perform a risk significant planning function in a timely manner.
The violation affected the NRC's ability to perform its regulatory function because it involved implementing a change that decreased the effectiveness of the emergency plan without NRC approval. Therefore, this issue was evaluated using Traditional Enforcement. The NRC determined that a Severity Level lV violation was appropriate due to the reduction of the capability to perform a risk significant planning standard function in a timely manner. The licensee entered this issue into its corrective action program and revised the EAL basis to restore compliance.
The finding was more than minor using IMC 0612, because it is associated with the emergency preparedness cornerstone attribute of procedure quality for EAL and emergency plan changes, and it adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Therefore, the performance deficiency was a finding. Using IMC 0609, Appendix B, the inspector determined that the finding had a very low safety significance because the finding is a failure to comply with 10 CFR 50.54(q) involving the risk significant planning standard 50.47(bX4), which, in this case, met the example of a Green finding because it involved one Unusual Event classification (EAL HUO).
Due to the age of this issue, it was not determined to be reflective of current licensee performance and therefore a cross-cutting aspect was not assigned to this finding.
Inspection Report# : 2011005 *(pdf)*
Inspection Report# : 2011503 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Significance: SL-IV Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Administer Post Event Fitness for Duty Testing
The inspectors identified a Severity Level (SL) lV, non-cited violation (NCV) of 10 CFR 26.31 (c) (3) and Exelon procedure SY-AA-102-202, "Testing For Cause," for failure to administer post-event drug and alcohol testing after a potential substantial degradation of the level of safety of the plant occurred on December, 23,2010. Additionally, the inspectors identified that the licensee failed to administer a post event fatigue assessment per 10 CFR 26.211 (aX3) and Exelon procedure LS-AA-1 19-1001 , "Fatigue Management." Specifically, the inspectors identified that on December, 23, 2010, the licensee failed to conduct post-event drug and alcohol testing, and fatigue assessments of the operators whose human error caused a reactor scram during a reactor startup. Upon identification, the licensee entered this issue into the CAP.

The inspectors determined that the finding involved traditional enforcement because Exelon did not perform 10 CFR 26.31 post event fitness for duty (FFD) testing and 10 CFR 26.211 post event fatigue assessments. lf a licensed operator had tested positive, Exelon would have had to report this to the NRC per 10 CFR26.719 (2xii). Exelon's failure to perform the required testing had the potential to impact the NRC's ability to take action against individual licensed operators, which impacted the regulatory process. In accordance with Section 6.14, "Fitness for Duty," of the NRC Enforcement Policy, the NRC determined that the safety significance of this violation met the SL lV criteria because the situation, per example 3 of a SL lV violation, was a matter with more than a minor safety or environmental significance. (Section 4OA2)
Inspection Report# : 2011002 *(pdf)*

Last modified : March 02, 2012

Oyster Creek
1Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Abnormal operating procedure conflicts with technical specification requirement
The inspectors identified a Green NCV of Technical Specification (TS) 6.8.1a, "Procedures and Programs," for improperly implementing technical specifications requirements into abnormal operation procedures for the reactor recirculation system. The inspectors determined this procedural inadequacy was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon's revised the abnormal operating procedure for the reactor recirculation system to restore compliance as a corrective action. Exelon entered this issue into the corrective action program for resolution as IR 1323171.

There were no similar examples in Appendix E to Inspection Manual Chapter (IMC) 0612, but the inspectors determined this finding was more than minor because this performance deficiency could be reasonably viewed as a precursor to a significant event and if left uncorrected, this performance deficiency would have the potential to lead to a more significant safety concern. Specifically, if the recirculation loop was returned to service after being isolated while the reactor was at power, then a significant cold water transient could occur which could result in a reactor trip as described in UFSAR Section 15.4.4. This finding affects the configuration control attribute of the Initiating Events cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that this finding was a transient initiator that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Therefore, the inspectors determined the finding to be of very low safety significance (Green).
The inspectors determined that it was not appropriate to assign a cross-cutting aspect to this finding as the performance deficiency had existed since the original issue of the procedure in 2000 and was not indicative of current performance. (Section 1R11)
Inspection Report# : 2012002 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Risk management actions not implemented to manage increased online risk during a surveillance test
The inspectors identified a Green NCV of 10 CFR 50.65(a)(4), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," when Exelon did not implement risk management actions to manage the risk associated with the performance of surveillance activities on containment spray system 1. The inspectors determined that not implementing risk management actions to mitigate an increased overall maintenance risk was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon's immediate corrective actions included resetting the crew clock and briefing the remaining operating crews on the details of this event. Exelon entered this issue into the

corrective action program for resolution as IR 1324575.

The inspectors determined that this issue is more than minor because it is similar to example 7.g in Inspection Manual Chapter (IMC) 0612, Appendix E, “Examples of Minor Issues” in that key safety functions were significantly degraded without sufficient compensation. The inspectors determined that this finding affected both the Mitigating Systems and Barriers Integrity cornerstones. The inspectors used Inspection Manual Chapter 0609, Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process,” flowchart 2, Assessment of Risk Management Actions,” to analyze the finding. As this finding is a 10 CFR 50.65(a)(4) performance issue associated with risk management actions only and the ICDP is not >1E-6, the inspectors determined that the finding is of very low safety significance (Green).

This finding has a crosscutting aspect in the area of Human Performance, Work Practices, because Exelon’s supervisory oversight of work activities did not support nuclear safety. [H.4.(c)] (Section 1R13)
Inspection Report# : 2012002 *(pdf)*

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish New Reference Values in Accordance with ASME Code
The inspectors identified a Green NCV of 10 CFR Part 50.55a, Codes and Standards, because Exelon did not complete an adequate analysis when establishing a new reference value for the A containment spray pump in accordance with the American Society of Mechanical Engineer (ASME) Operation and Maintenance (OM) Code Subsection ISTB 4.6. The inspectors determined that Exelon’s failure to correctly establish a new reference value for the A containment spray pump in accordance with the requirements of ASME OM Code Subsection ISTB 4.6 was a performance deficiency. Exelon entered this issue into the corrective action program for resolution as IR 1281326.

This finding is more than minor because it is similar to IMC 0612 Appendix C Example 3.j in that there was a reasonable doubt that the system met ASME operability requirements due to the inadequate evaluation. Additionally, the inspectors determined that this issue was more than minor because it affected the procedure quality attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, the finding is considered to be of very low safety significance.
This finding has a cross-cutting aspect in the area of Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, because Exelon did not fully follow the ASME requirements in Subsection ISTB 4.6, New Reference Values.

Inspection Report# : 2011005 *(pdf)*

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform acceptance inspection of contractor work results in damage to safety related instrument cable
The inspectors identified a NCV of 10 CFR Part 50, Appendix B, Criterion X, “Inspection,” when Exelon did not conduct a post maintenance inspection of work accomplished by a contractor on main steam isolation valve (MSIV), V-1-10, which resulted in heat damage to the valve position indication cabling causing a ground on the cable and the receipt of a half scram. Exelon’s corrective actions included replacement of the damaged cable, performance of a work group evaluation and revising the main steam insulation work orders to include a caution to not install insulation

on top of cabling.

The finding was more than minor because it affected the design control attribute of the Mitigating Systems Cornerstone of equipment performance to ensure the availability, reliability, and capability of a class I cable. Additionally, this finding is similar to IMC 0612, Appendix E, Example 4.a, in that an evaluation required by procedures was not performed and resulted in a failure in the system. The inspectors evaluated the risk of this finding using IMC 0609, “Significance Determination Process,” Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings.” The inspectors determined that the finding was of very low safety significance (green) because it did not result in an actual loss of function of the MSIV or the reactor protection system. The inspectors determined that this performance deficiency did not involve a cross cutting aspect as it occurred 4 years earlier and is not indicative of current licensee performance. (Section 1R12)

Inspection Report# : 2011003 *(pdf)*

Significance: G Apr 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Control Cables for the Reactor Coolant Inventory Makeup Source Not Protected From Fire Damage
The team identified an NCV of 10 CFR 50, Appendix R, lll.G.2, in that Exelon failed to maintain the credited reactor coolant inventory makeup system free of fire damage in the event of a fire in the 'B' 480 volt (V) switchgear room. Specifically, Exelon failed to assure that the 'A' control rod drive (CRD) pump would remain available during 'B'480V switchgear room fire scenarios. Cables associated with the'A'CRD pump low pressure suction trip are located in the 'B' 480V switchgear room and are not protected by one of the methods specified in 10 CFR 50, Appendix R, Section lll.G.2. Fire damage to these cables could result in the trip of the credited 'A' pump and render it inoperable from the control room. Exelon entered this issue into its corrective action program for long term resolution as lssue Report (lR) 01187591 and promptly established compensatory measures (an hourly fire watch) in the 'B' 480V switchgear room. Exelon also promptly performed an extent of condition review to ensure the 'B' CRD pump was not similarly affected for fire areas that credited its remote operation from the main control room.

This finding is more than minor because it is associated with the external factors attribute (fire) of the Mitigating Systems Cornerstone and adversely affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the availability of the credited 'A' CRD pump was not ensured for a 'B'480V switchgear room fire scenario. A Senior Reactor Analyst performed a Phase 3 Fire Protection Significance Determination Process analysis and determined that this finding was of very low safety significance (Green). The Phase 3 SDP conservatively assumed the 'A' CRD pump failed for eight separate fire scenarios initiated by electrical ignition sources or transient combustibles. The results of the SDP were largely dominated by the availability of the feedwater and condensate system for reactor coolant inventory control because its circuits were not routed through the 'B' 480V switchgear room. This finding did not have a cross-cutting aspect because the performance deficiency occurred during development of the safe shutdown analysis in the 1980's and is not reflective of current licensee performance.
Inspection Report# : 2011007 *(pdf)*

Barrier Integrity

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation

Reactivity management procedures not maintained in accordance with industry standards
The inspectors identified a Green NCV of TS 6.8.1a for not maintaining operating procedures in accordance with NRC and industry standards which required prudent, conservative lowering of reactor power prior to performing evolutions which had the potential to affect reactivity. The inspectors determined this procedural inadequacy was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon has documented no immediate corrective actions but has entered this issue into the corrective action program for resolution as IR 1355895.

There were no similar examples in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," but the inspectors determined this finding was more than minor because it affected the configuration control aspect of the Barrier Integrity cornerstone. Specifically, reactivity control and reactor manipulations are used to preserve the integrity of the fuel cladding in order to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors used IMC 0609.04, Attachment 1, "Phase 1 - Initial Screening and Characterization of Findings" and determined the finding to be of very low safety significance (Green) because it did not affect the RCS barrier or the fuel barrier.

This finding has a cross-cutting aspect in the area of Human Performance, Decision Making, where the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. [H.1.(b)] (Section 4OA2)
Inspection Report# : 2012002 *(pdf)*

Significance: N/A Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to ensure licensed operators met license conditions for medical examinations
Severity Level IV. The inspector identified a Severity Level IV non-cited violation of 10 CFR 55.21, "Medical Examination," for two licensed reactor operators failing to have a medical examination by a physician every two years. This violation was identified by an NRC inspector May 25, 2011 and Exelon entered it into their corrective action program and performed the medical examinations on the two reactor operators.

The inspectors determined that the failure to perform the biennial medical examinations for two licensed reactor operators in accordance with 10 CFR 55.21 was a performance deficiency that was reasonably within Exelon's ability to foresee and correct. Because the issue impacted the regulatory process, in that the medical conditions of two licensed operators were not reviewed and reported to the NRC, thereby delaying the NRC's opportunity to review the matter, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. Using example 6.4.d.1 from the NRC Enforcement Policy, the inspector determined that the violation was a SL IV (more than minor concern that resulted in no or relatively inappreciable potential safety or security consequence) violation, because Exelon personnel did not perform the medical examinations required by 10 CFR 55.21.

The finding was of very low safety significance
because during the time period when the physicals were required to be performed, neither operator had stood watch, and when the physicals were administered on June 2, 2011, all requirements were met. No changes to the conditions on either operator's license were necessary following their physicals. In accordance with Inspection Manual chapter (IMC) 0612, Appendix B, traditional enforcement issues are not assigned cross-cutting aspects. (Section 4OA2).
Inspection Report# : 2012002 *(pdf)*

Significance: G Apr 01, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
B.5.b. Phase 2 and 3 Mitigating Strategy
This finding, affecting the Barrier Integrity Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has a cross-cutting aspect in the area of H.2.(C). See inspection report for more details.
Inspection Report# : 2011009 *(pdf)*

Emergency Preparedness

Significance: G Aug 15, 2011
Identified By: NRC
Item Type: FIN Finding
Changes to EAL Basis Decreased the Effectiveness of the Plan without Prior NRC Approval
In response to the NCV and finding, Exelon entered the issue into their corrective action program as IR 01184333 and subsequently implemented Revision 3 of the Oyster Creek Emergency Plan, which restored the EAL HU6 Basis to the Revision 10 (of the pre-Exelon Revision 0 Emergency Plan) guidance, thereby removing the decrease in effectiveness. The inspectors reviewed IR 01184333 and the revised version of the HU6 Basis, and discussed the corrective actions with the Oyster Creek Emergency Preparedness staff.

Inspection Report# : 2011005 *(pdf)*
Inspection Report# : 2011503 *(pdf)*

Significance: G Aug 15, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Traditional Enforcement Changes to EAL Basis Decreased the Effectiveness of the Plan without Prior NRC Approval
The inspector identified a finding of very low safety significance involving a Severity Level lV NCV of 10 CFR 50.54(q) for failing to obtain prior approval for an emergency plan change which decreased the effectiveness of the plan. Specifically, the licensee modified the Emergency Action Level (EAL) Basis in EAL HU6, which indefinitely extended the start of the 1S-minute emergency classification clock beyond a credible notification that a fire is occurring or indication of a valid fire detection system alarm. This change decreased the effectiveness of the emergency plan by reducing the capability to perform a risk significant planning function in a timely manner.
The violation affected the NRC's ability to perform its regulatory function because it involved implementing a change that decreased the effectiveness of the emergency plan without NRC approval. Therefore, this issue was evaluated using Traditional Enforcement. The NRC determined that a Severity Level lV violation was appropriate due to the reduction of the capability to perform a risk significant planning standard function in a timely manner. The licensee entered this issue into its corrective action program and revised the EAL basis to restore compliance.
The finding was more than minor using IMC 0612, because it is associated with the emergency preparedness cornerstone attribute of procedure quality for EAL and emergency plan changes, and it adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Therefore, the

performance deficiency was a finding. Using IMC 0609, Appendix B, the inspector determined that the finding had a very low safety significance because the finding is a failure to comply with 10 CFR 50.54(q) involving the risk significant planning standard 50.47(bX4), which, in this case, met the example of a Green finding because it involved one Unusual Event classification (EAL HUO).
Due to the age of this issue, it was not determined to be reflective of current licensee performance and therefore a cross-cutting aspect was not assigned to this finding.
Inspection Report# : 2011005 *(pdf)*
Inspection Report# : 2011503 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : May 29, 2012

Oyster Creek
2Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Abnormal operating procedure conflicts with technical specification requirement
The inspectors identified a Green NCV of Technical Specification (TS) 6.8.1a, "Procedures and Programs," for improperly implementing technical specifications requirements into abnormal operation procedures for the reactor recirculation system. The inspectors determined this procedural inadequacy was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon's revised the abnormal operating procedure for the reactor recirculation system to restore compliance as a corrective action. Exelon entered this issue into the corrective action program for resolution as IR 1323171.

There were no similar examples in Appendix E to Inspection Manual Chapter (IMC) 0612, but the inspectors determined this finding was more than minor because this performance deficiency could be reasonably viewed as a precursor to a significant event and if left uncorrected, this performance deficiency would have the potential to lead to a more significant safety concern. Specifically, if the recirculation loop was returned to service after being isolated while the reactor was at power, then a significant cold water transient could occur which could result in a reactor trip as described in UFSAR Section 15.4.4. This finding affects the configuration control attribute of the Initiating Events cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that this finding was a transient initiator that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Therefore, the inspectors determined the finding to be of very low safety significance (Green).
The inspectors determined that it was not appropriate to assign a cross-cutting aspect to this finding as the performance deficiency had existed since the original issue of the procedure in 2000 and was not indicative of current performance. (Section 1R11)
Inspection Report# : 2012002 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Entry into a non-conservative technical specification with both isolation condensers inoperable during power operation
The inspectors identified a Green NCV of Technical Specification 3.8, "Isolation Condenser", specification D, when Exelon did not enter the correct technical specification and take the required actions when both isolation condensers were made inoperable in order to perform corrective maintenance. Specifically, Exelon incorrectly entered general Technical Specification 3.0.A for conditions in excess of those addressed in the technical specifications instead of the more specific technical specification (3.8.D) for when both isolation condensers are inoperable. Entry into the appropriate technical specification would have required the initiation of an immediate shutdown instead of allowing

30 hours to reach cold shutdown. Exelon entered this issue into their corrective action program as IR 1386020 to track resolution of this issue.

The inspectors determined that not entering the correct technical specification and invoking the associated action requirement was a performance deficiency that was reasonably within Exelon's ability to foresee and correct, and should have been prevented. This finding is more than minor because it is similar to example 2.a in IMC 0612, Appendix E. Specifically, by not entering TS 3.8.D, Exelon did not meet the technical specification requirement to start shutting down the plant immediately when both isolation condensers were made inoperable. Additionally, this finding also affects the Mitigating Systems cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon's training of personnel not sufficient to preclude entry into a non-conservative technical specification. [H.2(b)] (Section 1R15)

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: FIN Finding
APRM 7 Finding
The inspectors identified a Green finding when Exelon did not perform an adequate operability determination of Average Power Range Monitor (APRM) 7 prior to restoring it to operation on March 24, 2012, after it was declared inoperable on February 2, 2012. Specifically, Exelon declared APRM 7 operable on March 24, 2102 without a documented technical basis or successful completion of a surveillance test to demonstrate operability, and operated APRM 7 through April 3, 2012, when it failed in the same manner and was again declared inoperable. Exelon entered this issue into their corrective action program as IR XXTBDXX to track resolution of this issue.

The inspectors determined that the failure to perform an operability evaluation to demonstrate that APRM-7 was operable as directed by OP-AA-108-115, “Operability Determinations”, is a performance deficiency that was within Exelon’s ability to foresee and correct. The inspectors determined this finding was more than minor because if left uncorrected it could become a more significant safety concern. Specifically, degraded technical specification required and safety related equipment require a full operability screening to ensure Exelon identifies and characterizes the equipment performance issues, develops all needed compensatory measures and does not restore inoperable equipment to operable status. The inspectors determined the finding to be of very low safety significance (Green) because it affected the initiating events cornerstone and does not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions will not be available.

This finding has a cross cutting aspect in the area of Human Performance, Decision Making, where the licensee makes safety-significant or risk-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained [H.1(a)]. (Section 1R15)

Inspection Report# : 2012003 *(pdf)*

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Risk management actions not implemented to manage increased online risk during a surveillance test
The inspectors identified a Green NCV of 10 CFR 50.65(a)(4), “Requirements for monitoring the effectiveness of maintenance at nuclear power plants,” when Exelon did not implement risk management actions to manage the risk associated with the performance of

surveillance activities on containment spray system 1. The inspectors determined that not implementing risk management actions to mitigate an increased overall maintenance risk was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon's immediate corrective actions included resetting the crew clock and briefing the remaining operating crews on the details of this event. Exelon entered this issue into the corrective action program for resolution as IR 1324575.

The inspectors determined that this issue is more than minor because it is similar to example 7.g in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues" in that key safety functions were significantly degraded without sufficient compensation. The inspectors determined that this finding affected both the Mitigating Systems and Barriers Integrity cornerstones. The inspectors used Inspection Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," flowchart 2, Assessment of Risk Management Actions," to analyze the finding. As this finding is a 10 CFR 50.65(a)(4) performance issue associated with risk management actions only and the ICDP is not >1E-6, the inspectors determined that the finding is of very low safety significance (Green).

This finding has a crosscutting aspect in the area of Human Performance, Work Practices, because Exelon's supervisory oversight of work activities did not support nuclear safety. [H.4.(c)] (Section 1R13)
Inspection Report# : 2012002 *(pdf)*

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish New Reference Values in Accordance with ASME Code
The inspectors identified a Green NCV of 10 CFR Part 50.55a, Codes and Standards, because Exelon did not complete an adequate analysis when establishing a new reference value for the A containment spray pump in accordance with the American Society of Mechanical Engineer (ASME) Operation and Maintenance (OM) Code Subsection ISTB 4.6. The inspectors determined that Exelon's failure to correctly establish a new reference value for the A containment spray pump in accordance with the requirements of ASME OM Code Subsection ISTB 4.6 was a performance deficiency. Exelon entered this issue into the corrective action program for resolution as IR 1281326.

This finding is more than minor because it is similar to IMC 0612 Appendix C Example 3.j in that there was a reasonable doubt that the system met ASME operability requirements due to the inadequate evaluation. Additionally, the inspectors determined that this issue was more than minor because it affected the procedure quality attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, the finding is considered to be of very low safety significance.
This finding has a cross-cutting aspect in the area of Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, because Exelon did not fully follow the ASME requirements in Subsection ISTB 4.6, New Reference Values.

Inspection Report# : 2011005 *(pdf)*

Barrier Integrity

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Reactivity management procedures not maintained in accordance with industry standards
The inspectors identified a Green NCV of TS 6.8.1a for not maintaining operating procedures in accordance with NRC and industry standards which required prudent, conservative lowering of reactor power prior to performing evolutions which had the potential to affect reactivity. The inspectors determined this procedural inadequacy was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon has documented no immediate corrective actions but has entered this issue into the corrective action program for resolution as IR 1355895.

There were no similar examples in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," but the inspectors determined this finding was more than minor because it affected the configuration control aspect of the Barrier Integrity cornerstone. Specifically, reactivity control and reactor manipulations are used to preserve the integrity of the fuel cladding in order to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors used IMC 0609.04, Attachment 1, "Phase 1 - Initial Screening and Characterization of Findings" and determined the finding to be of very low safety significance (Green) because it did not affect the RCS barrier or the fuel barrier.

This finding has a cross-cutting aspect in the area of Human Performance, Decision Making, where the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. [H.1.(b)] (Section 4OA2)
Inspection Report# : 2012002 *(pdf)*

Significance: N/A Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to ensure licensed operators met license conditions for medical examinations
Severity Level IV. The inspector identified a Severity Level IV non-cited violation of 10 CFR 55.21, "Medical Examination," for two licensed reactor operators failing to have a medical examination by a physician every two years. This violation was identified by an NRC inspector May 25, 2011 and Exelon entered it into their corrective action program and performed the medical examinations on the two reactor operators.

The inspectors determined that the failure to perform the biennial medical examinations for two licensed reactor operators in accordance with 10 CFR 55.21 was a performance deficiency that was reasonably within Exelon's ability to foresee and correct. Because the issue impacted the regulatory process, in that the medical conditions of two licensed operators were not reviewed and reported to the NRC, thereby delaying the NRC's opportunity to review the matter, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. Using example 6.4.d.1 from the NRC Enforcement Policy, the inspector determined that the violation was a SL IV (more than minor concern that resulted in no or relatively inappreciable potential safety or security consequence) violation, because Exelon personnel did not perform the medical examinations required by 10 CFR 55.21.

The finding was of very low safety significance
because during the time period when the physicals were required to be performed, neither operator had stood watch, and when the physicals were administered on June 2, 2011, all requirements were met. No changes to the conditions on either operator's license were

necessary following their physicals. In accordance with Inspection Manual chapter (IMC) 0612, Appendix B, traditional enforcement issues are not assigned cross-cutting aspects. (Section 4OA2).
Inspection Report# : 2012002 *(pdf)*

Emergency Preparedness

Significance: G Aug 15, 2011
Identified By: NRC
Item Type: FIN Finding
Changes to EAL Basis Decreased the Effectiveness of the Plan without Prior NRC Approval
In response to the NCV and finding, Exelon entered the issue into their corrective action program as IR 01184333 and subsequently implemented Revision 3 of the Oyster Creek Emergency Plan, which restored the EAL HU6 Basis to the Revision 10 (of the pre-Exelon Revision 0 Emergency Plan) guidance, thereby removing the decrease in effectiveness. The inspectors reviewed IR 01184333 and the revised version of the HU6 Basis, and discussed the corrective actions with the Oyster Creek Emergency Preparedness staff.

Inspection Report# : 2011005 *(pdf)*
Inspection Report# : 2011503 *(pdf)*

Significance: G Aug 15, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Traditional Enforcement Changes to EAL Basis Decreased the Effectiveness of the Plan without Prior NRC Approval
The inspector identified a finding of very low safety significance involving a Severity Level lV NCV of 10 CFR 50.54(q) for failing to obtain prior approval for an emergency plan change which decreased the effectiveness of the plan. Specifically, the licensee modified the Emergency Action Level (EAL) Basis in EAL HU6, which indefinitely extended the start of the 1S-minute emergency classification clock beyond a credible notification that a fire is occurring or indication of a valid fire detection system alarm. This change decreased the effectiveness of the emergency plan by reducing the capability to perform a risk significant planning function in a timely manner.
The violation affected the NRC's ability to perform its regulatory function because it involved implementing a change that decreased the effectiveness of the emergency plan without NRC approval. Therefore, this issue was evaluated using Traditional Enforcement. The NRC determined that a Severity Level lV violation was appropriate due to the reduction of the capability to perform a risk significant planning standard function in a timely manner. The licensee entered this issue into its corrective action program and revised the EAL basis to restore compliance.
The finding was more than minor using IMC 0612, because it is associated with the emergency preparedness cornerstone attribute of procedure quality for EAL and emergency plan changes, and it adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Therefore, the performance deficiency was a finding. Using IMC 0609, Appendix B, the inspector determined that the finding had a very low safety significance because the finding is a failure to comply with 10 CFR 50.54(q) involving the risk significant planning standard 50.47(bX4), which, in this case, met the example of a Green finding because it involved one Unusual Event classification (EAL HUO).
Due to the age of this issue, it was not determined to be reflective of current licensee

performance and therefore a cross-cutting aspect was not assigned to this finding.
Inspection Report# : 2011005 *(pdf)*
Inspection Report# : 2011503 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : September 12, 2012

Oyster Creek
3Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Abnormal operating procedure conflicts with technical specification requirement
The inspectors identified a Green NCV of Technical Specification (TS) 6.8.1a, "Procedures and Programs," for improperly implementing technical specifications requirements into abnormal operation procedures for the reactor recirculation system. The inspectors determined this procedural inadequacy was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon's revised the abnormal operating procedure for the reactor recirculation system to restore compliance as a corrective action. Exelon entered this issue into the corrective action program for resolution as IR 1323171.

There were no similar examples in Appendix E to Inspection Manual Chapter (IMC) 0612, but the inspectors determined this finding was more than minor because this performance deficiency could be reasonably viewed as a precursor to a significant event and if left uncorrected, this performance deficiency would have the potential to lead to a more significant safety concern. Specifically, if the recirculation loop was returned to service after being isolated while the reactor was at power, then a significant cold water transient could occur which could result in a reactor trip as described in UFSAR Section 15.4.4. This finding affects the configuration control attribute of the Initiating Events cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that this finding was a transient initiator that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Therefore, the inspectors determined the finding to be of very low safety significance (Green).
The inspectors determined that it was not appropriate to assign a cross-cutting aspect to this finding as the performance deficiency had existed since the original issue of the procedure in 2000 and was not indicative of current performance. (Section 1R11)
Inspection Report# : 2012002 *(pdf)*

Mitigating Systems

Significance: G Aug 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Evaluate the impact of Increased Emergency Diesel Generators Loading on the Volume of Available Fuel Oil
The inspectors identified a Green NCV of 10 CFR 50 Appendix B, Criterion XVI,

"Corrective Action," for Exelon's failure to promptly identify and correct a condition adverse to quality. Specifically, Exelon did not promptly identify and correct the impact of increased emergency diesel generator (EDG) loading on the committed three day fuel oil supply. Existing procedural guidance requires load management actions after 8 hours which provides reasonable assurance of EDG operability. Exelon corrective actions include additional load management actions to ensure fuel oil capacity is maintained. This condition has been placed in the Exelon's corrective action program.

Exelon's failure to promptly identify and correct an inadequate technical evaluation that did not determine the impact of increased EDG loading on the existing three day fuel oil supply was a performance deficiency. Inspectors determined that the finding was more than minor because the performance deficiency was associated with the design control attribute of the Mitigating Systems Cornerstone and the associated cornerstone objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the technical evaluation stated that #2 EDG loading could be as much as 2735 KW which translates to approximately 65 hours of fuel capacity with the storage tank at minimum capacity versus the required 72 hours. The EDGs remain operable because they are capable of supplying accident loads with adequate load management actions after eight hours of operation. The inspectors evaluated the finding using IMC 0609, Appendix A, "the Significance Determination Process for Findings for At-Power," and determined that it was of very low safety significance (Green). The finding is not a deficiency affecting the design or qualification of a mitigating structure, system or component (SSC) and the SSC maintains its operability. The finding had a cross-cutting aspect in the area of problem identification and resolution, because Exelon did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions, as necessary. Specifically, Exelon's technical evaluations 1145338 and 1365452 failed to adequately evaluate the impact of increased loads on the amount of available EDG fuel oil. Therefore, at the increased loads of 2735 KW, the EDG's would have only had 65 hours of the required 72 hours of fuel oil capacity. [P.1 (c)] [Section 4OA2.1.c.]
Inspection Report# : 2012008 *(pdf)*

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Entry into a non-conservative technical specification with both isolation condensers inoperable during power operation
The inspectors identified a Green NCV of Technical Specification 3.8, "Isolation Condenser", specification D, when Exelon did not enter the correct technical specification and take the required actions when both isolation condensers were made inoperable in order to perform corrective maintenance. Specifically, Exelon incorrectly entered general Technical Specification 3.0.A for conditions in excess of those addressed in the technical specifications instead of the more specific technical specification (3.8.D) for when both isolation condensers are inoperable. Entry into the appropriate technical specification would have required the initiation of an immediate shutdown instead of allowing 30 hours to reach cold shutdown. Exelon entered this issue into their corrective action program as IR 1386020 to track resolution of this issue.

The inspectors determined that not entering the correct technical specification and invoking the associated action requirement was a performance deficiency that was reasonably within Exelon's ability to foresee and correct, and should have been prevented. This finding is more than minor because it is similar to example 2.a in IMC 0612, Appendix E. Specifically, by not entering TS 3.8.D, Exelon did not meet the technical specification requirement to start shutting down the plant immediately when both isolation condensers were made inoperable. Additionally, this finding also affects the Mitigating Systems cornerstone objective of ensuring the availability, reliability and capability

of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon's training of personnel not sufficient to preclude entry into a non-conservative technical specification. [H.2(b)] (Section 1R15)

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: FIN Finding
APRM 7 Finding
The inspectors identified a Green finding when Exelon did not perform an adequate operability determination of Average Power Range Monitor (APRM) 7 prior to restoring it to operation on March 24, 2012, after it was declared inoperable on February 2, 2012. Specifically, Exelon declared APRM 7 operable on March 24, 2102 without a documented technical basis or successful completion of a surveillance test to demonstrate operability, and operated APRM 7 through April 3, 2012, when it failed in the same manner and was again declared inoperable. Exelon entered this issue into their corrective action program as IR XXTBDXX to track resolution of this issue.

The inspectors determined that the failure to perform an operability evaluation to demonstrate that APRM-7 was operable as directed by OP-AA-108-115, “Operability Determinations”, is a performance deficiency that was within Exelon’s ability to foresee and correct. The inspectors determined this finding was more than minor because if left uncorrected it could become a more significant safety concern. Specifically, degraded technical specification required and safety related equipment require a full operability screening to ensure Exelon identifies and characterizes the equipment performance issues, develops all needed compensatory measures and does not restore inoperable equipment to operable status. The inspectors determined the finding to be of very low safety significance (Green) because it affected the initiating events cornerstone and does not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions will not be available.

This finding has a cross cutting aspect in the area of Human Performance, Decision Making, where the licensee makes safety-significant or risk-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained [H.1(a)]. (Section 1R15)

Inspection Report# : 2012003 *(pdf)*

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Risk management actions not implemented to manage increased online risk during a surveillance test
The inspectors identified a Green NCV of 10 CFR 50.65(a)(4), “Requirements for monitoring the effectiveness of maintenance at nuclear power plants,” when Exelon did not implement risk management actions to manage the risk associated with the performance of surveillance activities on containment spray system 1. The inspectors determined that not implementing risk management actions to mitigate an increased overall maintenance risk was a performance deficiency that was within Exelon’s ability to foresee and correct. Exelon’s immediate corrective actions included resetting the crew clock and briefing the

remaining operating crews on the details of this event. Exelon entered this issue into the corrective action program for resolution as IR 1324575.

The inspectors determined that this issue is more than minor because it is similar to example 7.g in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues" in that key safety functions were significantly degraded without sufficient compensation. The inspectors determined that this finding affected both the Mitigating Systems and Barriers Integrity cornerstones. The inspectors used Inspection Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," flowchart 2, Assessment of Risk Management Actions," to analyze the finding. As this finding is a 10 CFR 50.65(a)(4) performance issue associated with risk management actions only and the ICDP is not >1E-6, the inspectors determined that the finding is of very low safety significance (Green).

This finding has a crosscutting aspect in the area of Human Performance, Work Practices, because Exelon's supervisory oversight of work activities did not support nuclear safety. [H.4.(c)] (Section 1R13)
Inspection Report# : 2012002 *(pdf)*

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish New Reference Values in Accordance with ASME Code
The inspectors identified a Green NCV of 10 CFR Part 50.55a, Codes and Standards, because Exelon did not complete an adequate analysis when establishing a new reference value for the A containment spray pump in accordance with the American Society of Mechanical Engineer (ASME) Operation and Maintenance (OM) Code Subsection ISTB 4.6. The inspectors determined that Exelon's failure to correctly establish a new reference value for the A containment spray pump in accordance with the requirements of ASME OM Code Subsection ISTB 4.6 was a performance deficiency. Exelon entered this issue into the corrective action program for resolution as IR 1281326.

This finding is more than minor because it is similar to IMC 0612 Appendix C Example 3.j in that there was a reasonable doubt that the system met ASME operability requirements due to the inadequate evaluation. Additionally, the inspectors determined that this issue was more than minor because it affected the procedure quality attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, the finding is considered to be of very low safety significance.
This finding has a cross-cutting aspect in the area of Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, because Exelon did not fully follow the ASME requirements in Subsection ISTB 4.6, New Reference Values.

Inspection Report# : 2011005 *(pdf)*

Barrier Integrity

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Reactivity management procedures not maintained in accordance with industry standards
The inspectors identified a Green NCV of TS 6.8.1a for not maintaining operating procedures in accordance with NRC and industry standards which required prudent, conservative lowering of reactor power prior to performing evolutions which had the potential to affect reactivity. The inspectors determined this procedural inadequacy was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon has documented no immediate corrective actions but has entered this issue into the corrective action program for resolution as IR 1355895.

There were no similar examples in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," but the inspectors determined this finding was more than minor because it affected the configuration control aspect of the Barrier Integrity cornerstone. Specifically, reactivity control and reactor manipulations are used to preserve the integrity of the fuel cladding in order to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors used IMC 0609.04, Attachment 1, "Phase 1 - Initial Screening and Characterization of Findings" and determined the finding to be of very low safety significance (Green) because it did not affect the RCS barrier or the fuel barrier.

This finding has a cross-cutting aspect in the area of Human Performance, Decision Making, where the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. [H.1.(b)] (Section 4OA2)
Inspection Report# : 2012002 *(pdf)*

Significance: N/A Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to ensure licensed operators met license conditions for medical examinations
Severity Level IV. The inspector identified a Severity Level IV non-cited violation of 10 CFR 55.21, "Medical Examination," for two licensed reactor operators failing to have a medical examination by a physician every two years. This violation was identified by an NRC inspector May 25, 2011 and Exelon entered it into their corrective action program and performed the medical examinations on the two reactor operators.

The inspectors determined that the failure to perform the biennial medical examinations for two licensed reactor operators in accordance with 10 CFR 55.21 was a performance deficiency that was reasonably within Exelon's ability to foresee and correct. Because the issue impacted the regulatory process, in that the medical conditions of two licensed operators were not reviewed and reported to the NRC, thereby delaying the NRC's opportunity to review the matter, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. Using example 6.4.d.1 from the NRC Enforcement Policy, the inspector determined that the violation was a SL IV (more than minor concern that resulted in no or relatively inappreciable potential safety or security consequence) violation, because Exelon personnel did not perform the medical examinations required by 10 CFR 55.21.

The finding was of very low safety significance
because during the time period when the physicals were required to be performed, neither operator had stood watch, and when the physicals were administered on June 2, 2011, all requirements were met. No changes to the conditions on either operator's license were necessary following their physicals. In accordance with Inspection Manual chapter (IMC) 0612, Appendix B, traditional enforcement issues are not assigned cross-cutting aspects. (Section 4OA2).
Inspection Report# : 2012002 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : November 30, 2012

Oyster Creek
4Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Abnormal operating procedure conflicts with technical specification requirement
The inspectors identified a Green NCV of Technical Specification (TS) 6.8.1a, "Procedures and Programs," for improperly implementing technical specifications requirements into abnormal operation procedures for the reactor recirculation system. The inspectors determined this procedural inadequacy was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon's revised the abnormal operating procedure for the reactor recirculation system to restore compliance as a corrective action. Exelon entered this issue into the corrective action program for resolution as IR 1323171.

There were no similar examples in Appendix E to Inspection Manual Chapter (IMC) 0612, but the inspectors determined this finding was more than minor because this performance deficiency could be reasonably viewed as a precursor to a significant event and if left uncorrected, this performance deficiency would have the potential to lead to a more significant safety concern. Specifically, if the recirculation loop was returned to service after being isolated while the reactor was at power, then a significant cold water transient could occur which could result in a reactor trip as described in UFSAR Section 15.4.4. This finding affects the configuration control attribute of the Initiating Events cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that this finding was a transient initiator that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Therefore, the inspectors determined the finding to be of very low safety significance (Green).
The inspectors determined that it was not appropriate to assign a cross-cutting aspect to this finding as the performance deficiency had existed since the original issue of the procedure in 2000 and was not indicative of current performance. (Section 1R11)
Inspection Report# : 2012002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Inspection and Torquing of Bolted Connection Procedure
The inspectors identified a Green, non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Exelon did not properly implement procedural controls to ensure adequate thread engagement for standby liquid control (SLC) squib valve flanges. Specifically, SLC squib valve flanges were installed with inadequate thread engagement (stud was not flush with the nut), as required by Exelon's maintenance procedures. Exelon's corrective actions included declaring the system inoperable, entering the issue into the corrective action program (IR 1444861 and 1444862) and immediately replacing the existing bolts with bolts of an appropriate length such that projection through the nut was at least flush.

The performance deficiency was more than minor because if left uncorrected the inadequate thread engagement would have the potential to lead to a more significant safety concern. Specifically, Exelon's evaluation stated that the SLC squib valve spool piece flanges would not have been able to perform their design function under all seismic conditions when the system was required to be operable. In consultation with the Region I senior reactor analyst, the inspectors reviewed this condition using IMC 0609, Attachment G, "Shutdown Operations Significance Determination Process." As the condition occurred during the refueling outage and was identified and corrected before Exelon started up the Oyster Creek reactor, and only existed during the outage when SLC was not required to be operable (November 16 – 27, 2012), the issue screened to very low safety significance (Green). This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program because Exelon did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. Specifically, Exelon did not take appropriate corrective actions, such as replacing bolts during the refueling outage with longer bolts, after the NRC identified a similar concern on the same SLC squib valve spool flanges in September 2012 (IR 1417726). (P.1(d)) (Section 1R15)

Inspection Report# : 2012005 *(pdf)*

Significance: G Aug 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Evaluate the impact of Increased Emergency Diesel Generators Loading on the Volume of Available Fuel Oil
The inspectors identified a Green NCV of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly identify and correct a condition adverse to quality. Specifically, Exelon did not promptly identify and correct the impact of increased emergency diesel generator (EDG) loading on the committed three day fuel oil supply. Existing procedural guidance requires load management actions after 8 hours which provides reasonable assurance of EDG operability. Exelon corrective actions include additional load management actions to ensure fuel oil capacity is maintained. This condition has been placed in the Exelon's corrective action program.

Exelon's failure to promptly identify and correct an inadequate technical evaluation that did not determine the impact of increased EDG loading on the existing three day fuel oil supply was a performance deficiency. Inspectors determined that the finding was more than minor because the performance deficiency was associated with the design control attribute of the Mitigating Systems Cornerstone and the associated cornerstone objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the technical evaluation stated that #2 EDG loading could be as much as 2735 KW which translates to approximately 65 hours of fuel capacity with the storage tank at minimum capacity versus the required 72 hours. The EDGs remain operable because they are capable of supplying accident loads with adequate load management actions after eight hours of operation. The inspectors evaluated the finding using IMC 0609, Appendix A, "the Significance Determination Process for Findings for At-Power," and determined that it was of very low safety significance (Green). The finding is not a deficiency affecting the design or qualification of a mitigating structure, system or component (SSC) and the SSC maintains its operability. The finding had a cross-cutting aspect in the area of problem identification and resolution, because Exelon did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions, as necessary. Specifically, Exelon's technical evaluations 1145338 and 1365452 failed to adequately evaluate the impact of increased loads on the amount of available EDG fuel oil. Therefore, at the increased loads of 2735 KW, the EDG's would have only had 65 hours of the required 72 hours of fuel oil capacity. [P.1 (c)] [Section 4OA2.1.c.]
Inspection Report# : 2012008 *(pdf)*

Significance: G Jun 30, 2012

Identified By: NRC
Item Type: NCV NonCited Violation
Entry into a non-conservative technical specification with both isolation condensers inoperable during power operation
The inspectors identified a Green NCV of Technical Specification 3.8, "Isolation Condenser", specification D, when Exelon did not enter the correct technical specification and take the required actions when both isolation condensers were made inoperable in order to perform corrective maintenance. Specifically, Exelon incorrectly entered general Technical Specification 3.0.A for conditions in excess of those addressed in the technical specifications instead of the more specific technical specification (3.8.D) for when both isolation condensers are inoperable. Entry into the appropriate technical specification would have required the initiation of an immediate shutdown instead of allowing 30 hours to reach cold shutdown. Exelon entered this issue into their corrective action program as IR 1386020 to track resolution of this issue.

The inspectors determined that not entering the correct technical specification and invoking the associated action requirement was a performance deficiency that was reasonably within Exelon's ability to foresee and correct, and should have been prevented. This finding is more than minor because it is similar to example 2.a in IMC 0612, Appendix E. Specifically, by not entering TS 3.8.D, Exelon did not meet the technical specification requirement to start shutting down the plant immediately when both isolation condensers were made inoperable. Additionally, this finding also affects the Mitigating Systems cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon's training of personnel not sufficient to preclude entry into a non-conservative technical specification. [H.2(b)] (Section 1R15)

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: FIN Finding
APRM 7 Finding
The inspectors identified a Green finding when Exelon did not perform an adequate operability determination of Average Power Range Monitor (APRM) 7 prior to restoring it to operation on March 24, 2012, after it was declared inoperable on February 2, 2012. Specifically, Exelon declared APRM 7 operable on March 24, 2102 without a documented technical basis or successful completion of a surveillance test to demonstrate operability, and operated APRM 7 through April 3, 2012, when it failed in the same manner and was again declared inoperable. Exelon entered this issue into their corrective action program as IR XXTBDXX to track resolution of this issue.

The inspectors determined that the failure to perform an operability evaluation to demonstrate that APRM-7 was operable as directed by OP-AA-108-115, “Operability Determinations”, is a performance deficiency that was within Exelon’s ability to foresee and correct. The inspectors determined this finding was more than minor because if left uncorrected it could become a more significant safety concern. Specifically, degraded technical specification required and safety related equipment require a full operability screening to ensure Exelon identifies and characterizes the equipment performance issues, develops all needed compensatory measures and does not restore inoperable equipment to operable status. The inspectors determined the finding to be of very low safety significance (Green) because it affected the initiating events cornerstone and does not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions will not be available.

This finding has a cross cutting aspect in the area of Human Performance, Decision Making, where the licensee makes safety-significant or risk-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained [H.1(a)]. (Section 1R15)

Inspection Report# : 2012003 *(pdf)*

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Risk management actions not implemented to manage increased online risk during a surveillance test
The inspectors identified a Green NCV of 10 CFR 50.65(a)(4), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," when Exelon did not implement risk management actions to manage the risk associated with the performance of surveillance activities on containment spray system 1. The inspectors determined that not implementing risk management actions to mitigate an increased overall maintenance risk was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon's immediate corrective actions included resetting the crew clock and briefing the remaining operating crews on the details of this event. Exelon entered this issue into the corrective action program for resolution as IR 1324575.

The inspectors determined that this issue is more than minor because it is similar to example 7.g in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues" in that key safety functions were significantly degraded without sufficient compensation. The inspectors determined that this finding affected both the Mitigating Systems and Barriers Integrity cornerstones. The inspectors used Inspection Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," flowchart 2, Assessment of Risk Management Actions," to analyze the finding. As this finding is a 10 CFR 50.65(a)(4) performance issue associated with risk management actions only and the ICDP is not >1E-6, the inspectors determined that the finding is of very low safety significance (Green).

This finding has a crosscutting aspect in the area of Human Performance, Work Practices, because Exelon's supervisory oversight of work activities did not support nuclear safety. [H.4.(c)] (Section 1R13)
Inspection Report# : 2012002 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Application of Strippable Coating to the Refueling Cavity Liner and the Failure to Configure a Valve in the Leakage Collection System Resulting in Increased Potential for Corrosion
Green. A self-revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified because Exelon procedures and work orders were not effective in preventing refueling cavity leakage from overflowing onto the exterior surface of the drywell liner during the refueling outage (1R24) in November 2012. The performance deficiencies that contributed to the finding were inadequate oversight of the contractors applying a strippable coating to the reactor cavity liner and a valve configuration control error on a temporarily installed leakage collection system. Upon discovery, Exelon took immediate corrective actions to open the leakage collection system filter inlet valve and restore reactor cavity liner leakage flow to the reactor building equipment drain tank.

This finding is more than minor because, if left uncorrected, this condition would have the potential to lead to a more significant safety concern. Specifically, the continued wetting of the metallic drywell liner surface could provide an environment conducive to corrosion. This finding is not more than very low safety significance because the licensee performs periodic inspections of drywell liner and exterior surface coating to ensure that liner corrosion is monitored and controlled. The inspector completed the Phase 1 Initial Screening and Characterization of Findings, of Attachment

0609.04 of Inspection Manual Chapter (IMC) 0609, and screened the finding to Green, very low safety significance. This finding is not more than very low safety significance because the licensee performs periodic inspections of the drywell liner and exterior surface coating to ensure that liner corrosion is monitored and controlled. Exelon has entered this condition into the corrective action process under IR 1440116. This finding has a cross cutting aspect in the area of Human Performance, Work Practices, H.4(c) for not ensuring supervisory and management oversight of work activities, including contractors and plant personnel, such that nuclear safety is supported regarding the application of the strippable coating on the reactor cavity liner. (H.4(c)) (Section 1R08)

Inspection Report# : 2012005 *(pdf)*

Significance: G Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Reactivity management procedures not maintained in accordance with industry standards
The inspectors identified a Green NCV of TS 6.8.1a for not maintaining operating procedures in accordance with NRC and industry standards which required prudent, conservative lowering of reactor power prior to performing evolutions which had the potential to affect reactivity. The inspectors determined this procedural inadequacy was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon has documented no immediate corrective actions but has entered this issue into the corrective action program for resolution as IR 1355895.

There were no similar examples in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," but the inspectors determined this finding was more than minor because it affected the configuration control aspect of the Barrier Integrity cornerstone. Specifically, reactivity control and reactor manipulations are used to preserve the integrity of the fuel cladding in order to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors used IMC 0609.04, Attachment 1, "Phase 1 - Initial Screening and Characterization of Findings" and determined the finding to be of very low safety significance (Green) because it did not affect the RCS barrier or the fuel barrier.

This finding has a cross-cutting aspect in the area of Human Performance, Decision Making, where the licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. [H.1.(b)] (Section 4OA2)
Inspection Report# : 2012002 *(pdf)*

Significance: N/A Mar 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to ensure licensed operators met license conditions for medical examinations
Severity Level IV. The inspector identified a Severity Level IV non-cited violation of 10 CFR 55.21, "Medical Examination," for two licensed reactor operators failing to have a medical examination by a physician every two years. This violation was identified by an NRC inspector May 25, 2011 and Exelon entered it into their corrective action program and performed the medical examinations on the two reactor operators.

The inspectors determined that the failure to perform the biennial medical examinations for two licensed reactor operators in accordance with 10 CFR 55.21 was a performance deficiency that was reasonably within Exelon's ability to foresee and correct. Because the issue impacted the regulatory process, in that the medical conditions of two licensed operators were not reviewed and reported to the NRC, thereby delaying the NRC's opportunity to review the matter, the inspectors evaluated this performance deficiency in

accordance with the traditional enforcement process. Using example 6.4.d.1 from the NRC Enforcement Policy, the inspector determined that the violation was a SL IV (more than minor concern that resulted in no or relatively inappreciable potential safety or security consequence) violation, because Exelon personnel did not perform the medical examinations required by 10 CFR 55.21.

The finding was of very low safety significance
because during the time period when the physicals were required to be performed, neither operator had stood watch, and when the physicals were administered on June 2, 2011, all requirements were met. No changes to the conditions on either operator's license were necessary following their physicals. In accordance with Inspection Manual chapter (IMC) 0612, Appendix B, traditional enforcement issues are not assigned cross-cutting aspects. (Section 4OA2).
Inspection Report# : 2012002 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : February 28, 2013

Oyster Creek
1Q/2013 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Emergency service water non-conformance not entered identified as a condition adverse to quality and not entered into corrective action program
The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," when Exelon did not promptly identify or correct a condition adverse to quality. The inspectors determined that failing to identify and enter a condition adverse to quality into the corrective action program is a performance deficiency that was within Exelon's ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR1481670. This finding is more than minor because it is associated with the design control attribute of the mitigating systems cornerstone and affected the cornerstone objective of "ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences." This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of emergency service water system 2 and additional analysis was necessary to verify operability. The inspectors evaluated the finding using exhibit 2, "Mitigating System Screening Questions" in appendix A to inspection manual chapter 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating SSC, where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance
This finding has a cross-cutting aspect in the area of Problem Identification and
Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the non-conforming emergency service water expansion joint in a timely manner [P.1(a)]. (1R15)

Inspection Report# : 2013002 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Inspection and Torquing of Bolted Connection Procedure
The inspectors identified a Green, non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Exelon did not properly implement procedural controls to ensure adequate thread engagement for standby liquid control (SLC) squib valve flanges. Specifically, SLC squib valve flanges were installed with inadequate thread engagement (stud was not flush with the nut), as required by Exelon's maintenance procedures. Exelon's corrective actions included declaring the system inoperable, entering the issue into the corrective action program (IR 1444861 and 1444862) and immediately replacing the existing bolts with bolts of an appropriate length such that projection through the nut was at least flush.

The performance deficiency was more than minor because if left uncorrected the inadequate thread engagement would have the potential to lead to a more significant safety concern. Specifically, Exelon's evaluation stated that the SLC squib valve spool piece flanges would not have been able to perform their design function under all seismic conditions when the system was required to be operable. In consultation with the Region I senior reactor analyst, the inspectors reviewed this condition using IMC 0609, Attachment G, "Shutdown Operations Significance Determination Process." As the condition occurred during the refueling outage and was identified and corrected before Exelon started up the Oyster Creek reactor, and only existed during the outage when SLC was not required to be operable (November 16 – 27, 2012), the issue screened to very low safety significance (Green). This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program because Exelon did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. Specifically, Exelon did not take appropriate corrective actions, such as replacing bolts during the refueling outage with longer bolts, after the NRC identified a similar concern on the same SLC squib valve spool flanges in September 2012 (IR 1417726). (P.1(d)) (Section 1R15)

Inspection Report# : 2012005 *(pdf)*

Significance: G Aug 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Evaluate the impact of Increased Emergency Diesel Generators Loading on the Volume of Available Fuel Oil
The inspectors identified a Green NCV of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly identify and correct a condition adverse to quality. Specifically, Exelon did not promptly identify and correct the impact of increased emergency diesel generator (EDG) loading on the committed three day fuel oil supply. Existing procedural guidance requires load management actions after 8 hours which provides reasonable assurance of EDG operability. Exelon corrective actions include additional load management actions to ensure fuel oil capacity is maintained. This condition has been placed in the Exelon's corrective action program.

Exelon's failure to promptly identify and correct an inadequate technical evaluation that did not determine the impact of increased EDG loading on the existing three day fuel oil supply was a performance deficiency. Inspectors determined that the finding was more than minor because the performance deficiency was associated with the design control attribute of the Mitigating Systems Cornerstone and the associated cornerstone objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the technical evaluation stated that #2 EDG loading could be as much as 2735 KW which translates to approximately 65 hours of fuel capacity with the storage tank at minimum capacity versus the required 72 hours. The EDGs remain operable because they are capable of supplying accident loads with adequate load management actions after eight hours of operation. The inspectors evaluated the finding using IMC 0609, Appendix A, "the Significance Determination Process for Findings for At-Power," and determined that it was of very low safety significance (Green). The finding is not a deficiency affecting the design or qualification of a mitigating structure, system or component (SSC) and the SSC maintains its operability. The finding had a cross-cutting aspect in the area of problem identification and resolution, because Exelon did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions, as necessary. Specifically, Exelon's technical evaluations 1145338 and 1365452 failed to adequately evaluate the impact of increased loads on the amount of available EDG fuel oil. Therefore, at the increased loads of 2735 KW, the EDG's would have only had 65 hours of the required 72 hours of fuel oil capacity. [P.1 (c)] [Section 4OA2.1.c.]

Inspection Report# : 2012008 *(pdf)*

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Entry into a non-conservative technical specification with both isolation condensers inoperable during power operation
The inspectors identified a Green NCV of Technical Specification 3.8, "Isolation Condenser", specification D, when Exelon did not enter the correct technical specification and take the required actions when both isolation condensers were made inoperable in order to perform corrective maintenance. Specifically, Exelon incorrectly entered general Technical Specification 3.0.A for conditions in excess of those addressed in the technical specifications instead of the more specific technical specification (3.8.D) for when both isolation condensers are inoperable. Entry into the appropriate technical specification would have required the initiation of an immediate shutdown instead of allowing 30 hours to reach cold shutdown. Exelon entered this issue into their corrective action program as IR 1386020 to track resolution of this issue.

The inspectors determined that not entering the correct technical specification and invoking the associated action requirement was a performance deficiency that was reasonably within Exelon's ability to foresee and correct, and should have been prevented. This finding is more than minor because it is similar to example 2.a in IMC 0612, Appendix E. Specifically, by not entering TS 3.8.D, Exelon did not meet the technical specification requirement to start shutting down the plant immediately when both isolation condensers were made inoperable. Additionally, this finding also affects the Mitigating Systems cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon's training of personnel not sufficient to preclude entry into a non-conservative technical specification. [H.2(b)] (Section 1R15)

Inspection Report# : 2012003 *(pdf)*

Significance: G Jun 30, 2012
Identified By: NRC
Item Type: FIN Finding
APRM 7 Finding
The inspectors identified a Green finding when Exelon did not perform an adequate operability determination of Average Power Range Monitor (APRM) 7 prior to restoring it to operation on March 24, 2012, after it was declared inoperable on February 2, 2012. Specifically, Exelon declared APRM 7 operable on March 24, 2102 without a documented technical basis or successful completion of a surveillance test to demonstrate operability, and operated APRM 7 through April 3, 2012, when it failed in the same manner and was again declared inoperable. Exelon entered this issue into their corrective action program as IR XXTBDXX to track resolution of this issue.

The inspectors determined that the failure to perform an operability evaluation to demonstrate that APRM-7 was operable as directed by OP-AA-108-115, “Operability Determinations”, is a performance deficiency that was within Exelon’s ability to foresee and correct. The inspectors determined this finding was more than minor because if left uncorrected it could become a more significant safety concern. Specifically, degraded technical specification required and safety related equipment require a full operability screening to ensure Exelon identifies and characterizes the

equipment performance issues, develops all needed compensatory measures and does not restore inoperable equipment to operable status. The inspectors determined the finding to be of very low safety significance (Green) because it affected the initiating events cornerstone and does not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions will not be available.

This finding has a cross cutting aspect in the area of Human Performance, Decision Making, where the licensee makes safety-significant or risk-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained [H.1(a)]. (Section 1R15)

Inspection Report# : 2012003 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Application of Strippable Coating to the Refueling Cavity Liner and the Failure to Configure a Valve in the Leakage Collection System Resulting in Increased Potential for Corrosion
Green. A self-revealing NCV of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified because Exelon procedures and work orders were not effective in preventing refueling cavity leakage from overflowing onto the exterior surface of the drywell liner during the refueling outage (1R24) in November 2012. The performance deficiencies that contributed to the finding were inadequate oversight of the contractors applying a strippable coating to the reactor cavity liner and a valve configuration control error on a temporarily installed leakage collection system. Upon discovery, Exelon took immediate corrective actions to open the leakage collection system filter inlet valve and restore reactor cavity liner leakage flow to the reactor building equipment drain tank.

This finding is more than minor because, if left uncorrected, this condition would have the potential to lead to a more significant safety concern. Specifically, the continued wetting of the metallic drywell liner surface could provide an environment conducive to corrosion. This finding is not more than very low safety significance because the licensee performs periodic inspections of drywell liner and exterior surface coating to ensure that liner corrosion is monitored and controlled. The inspector completed the Phase 1 Initial Screening and Characterization of Findings, of Attachment 0609.04 of Inspection Manual Chapter (IMC) 0609, and screened the finding to Green, very low safety significance. This finding is not more than very low safety significance because the licensee performs periodic inspections of the drywell liner and exterior surface coating to ensure that liner corrosion is monitored and controlled. Exelon has entered this condition into the corrective action process under IR 1440116. This finding has a cross cutting aspect in the area of Human Performance, Work Practices, H.4(c) for not ensuring supervisory and management oversight of work activities, including contractors and plant personnel, such that nuclear safety is supported regarding the application of the strippable coating on the reactor cavity liner. (H.4(c)) (Section 1R08)

Inspection Report# : 2012005 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : June 04, 2013

Oyster Creek
2Q/2013 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded Emergency Diesel Generator Bypass Sight Glass not identified in the Corrective Action Program
Green. The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify a condition adverse to quality. Specifically, from December 10, 2012 to April 4, 2013, Exelon did not identify that the fuel bypass sight glass on the #1 emergency diesel generator (EDG) was partially full. A partially full fuel bypass sight glass indicates that the bypass relief valve is degraded, challenging the operability of the emergency diesel generator because fuel could have bypassed the fuel injectors and therefore prevented the emergency diesel generator from being able to achieve full rated power. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 1497683 and subsequently replaced a degraded relief valve in the bypass sight glass.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of an emergency diesel generator to perform its safety function during its mission time. This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, “Examples of Minor Issues,” because the condition resulted in reasonable doubt of the operability of the #1 emergency diesel generator and additional analysis was necessary to verify operability. The inspectors evaluated the finding using exhibit 2, "Mitigating System Screening Questions" in Appendix A to IMC 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating SSC, where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the degraded emergency diesel generator bypass sight glass in a timely manner on December 10, 2012 through April 4, 2013 when identified by NRC inspectors. [P.1 (a)]. (Section 1R15.1)

Inspection Report# : 2013003 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Alarm Response Procedures did not implement Technical Specification Requirements
The inspectors identified a Green NCV of technical specification 6.8.1a for improperly implementing technical specifications requirements into alarm response procedures for the 125 VDC (volts – direct current) system. The

inspectors determined that the improper implementation of technical specification requirements into alarm response procedures for the 125 VDC system is a performance deficiency that was within Exelon's ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR 1512551.

The inspectors determined this finding was more than minor because the finding affected the procedure quality attribute of the mitigating system cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. The inspectors determined this finding was not a deficiency affecting the design or qualification of a mitigating SSC, did not represent a loss of system or function, did not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time, did not represent an actual loss of function of two separate safety systems for greater than its technical specification allowed outage time, and did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with Exelon's maintenance rule program for greater than 24 hours. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon did not ensure that procedures affecting nuclear safety were accurately maintained. Specifically, technical specifications requirements regarding the battery charger were not accurately reflected in the alarm response procedure. [H.2(c)] (Section 1R15.2)

Inspection Report# : 2013003 *(pdf)*

Significance: G Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Emergency service water non-conformance not entered identified as a condition adverse to quality and not entered into corrective action program
The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," when Exelon did not promptly identify or correct a condition adverse to quality. The inspectors determined that failing to identify and enter a condition adverse to quality into the corrective action program is a performance deficiency that was within Exelon's ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR1481670. This finding is more than minor because it is associated with the design control attribute of the mitigating systems cornerstone and affected the cornerstone objective of "ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences." This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of emergency service water system 2 and additional analysis was necessary to verify operability. The inspectors evaluated the finding using exhibit 2, "Mitigating System Screening Questions" in appendix A to inspection manual chapter 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating SSC, where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance
This finding has a cross-cutting aspect in the area of Problem Identification and
Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the non-conforming emergency service water expansion joint in a timely manner [P.1(a)]. (1R15)

Inspection Report# : 2013002 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Follow Inspection and Torquing of Bolted Connection Procedure
The inspectors identified a Green, non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Exelon did not properly implement procedural controls to ensure adequate thread engagement for standby liquid control (SLC) squib valve flanges. Specifically, SLC squib valve flanges were installed with inadequate thread engagement (stud was not flush with the nut), as required by Exelon's maintenance procedures. Exelon's corrective actions included declaring the system inoperable, entering the issue into the corrective action program (IR 1444861 and 1444862) and immediately replacing the existing bolts with bolts of an appropriate length such that projection through the nut was at least flush.

The performance deficiency was more than minor because if left uncorrected the inadequate thread engagement would have the potential to lead to a more significant safety concern. Specifically, Exelon's evaluation stated that the SLC squib valve spool piece flanges would not have been able to perform their design function under all seismic conditions when the system was required to be operable. In consultation with the Region I senior reactor analyst, the inspectors reviewed this condition using IMC 0609, Attachment G, "Shutdown Operations Significance Determination Process." As the condition occurred during the refueling outage and was identified and corrected before Exelon started up the Oyster Creek reactor, and only existed during the outage when SLC was not required to be operable (November 16 – 27, 2012), the issue screened to very low safety significance (Green). This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program because Exelon did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. Specifically, Exelon did not take appropriate corrective actions, such as replacing bolts during the refueling outage with longer bolts, after the NRC identified a similar concern on the same SLC squib valve spool flanges in September 2012 (IR 1417726). (P.1(d)) (Section 1R15)

Inspection Report# : 2012005 *(pdf)*

Significance: G Aug 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Evaluate the impact of Increased Emergency Diesel Generators Loading on the Volume of Available Fuel Oil
The inspectors identified a Green NCV of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly identify and correct a condition adverse to quality. Specifically, Exelon did not promptly identify and correct the impact of increased emergency diesel generator (EDG) loading on the committed three day fuel oil supply. Existing procedural guidance requires load management actions after 8 hours which provides reasonable assurance of EDG operability. Exelon corrective actions include additional load management actions to ensure fuel oil capacity is maintained. This condition has been placed in the Exelon's corrective action program.

Exelon's failure to promptly identify and correct an inadequate technical evaluation that did not determine the impact of increased EDG loading on the existing three day fuel oil supply was a performance deficiency. Inspectors determined that the finding was more than minor because the performance deficiency was associated with the design control attribute of the Mitigating Systems Cornerstone and the associated cornerstone objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the technical evaluation stated that #2 EDG loading could be as much as 2735 KW which translates to approximately 65 hours of fuel capacity with the storage tank at minimum capacity versus the required 72 hours. The EDGs remain operable because they are capable of supplying accident loads with adequate load management actions after eight hours of operation. The inspectors evaluated the finding using IMC 0609, Appendix A, "the Significance Determination Process for

Findings for At-Power," and determined that it was of very low safety significance (Green). The finding is not a deficiency affecting the design or qualification of a mitigating structure, system or component (SSC) and the SSC maintains its operability. The finding had a cross-cutting aspect in the area of problem identification and resolution, because Exelon did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions, as necessary. Specifically, Exelon's technical evaluations 1145338 and 1365452 failed to adequately evaluate the impact of increased loads on the amount of available EDG fuel oil. Therefore, at the increased loads of 2735 KW, the EDG's would have only had 65 hours of the required 72 hours of fuel oil capacity. [P.1 (c)] [Section 4OA2.1.c.]
Inspection Report# : 2012008 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Application of Strippable Coating to the Refueling Cavity Liner and the Failure to Configure a Valve in the Leakage Collection System Resulting in Increased Potential for Corrosion
Green. A self-revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified because Exelon procedures and work orders were not effective in preventing refueling cavity leakage from overflowing onto the exterior surface of the drywell liner during the refueling outage (1R24) in November 2012. The performance deficiencies that contributed to the finding were inadequate oversight of the contractors applying a strippable coating to the reactor cavity liner and a valve configuration control error on a temporarily installed leakage collection system. Upon discovery, Exelon took immediate corrective actions to open the leakage collection system filter inlet valve and restore reactor cavity liner leakage flow to the reactor building equipment drain tank.

This finding is more than minor because, if left uncorrected, this condition would have the potential to lead to a more significant safety concern. Specifically, the continued wetting of the metallic drywell liner surface could provide an environment conducive to corrosion. This finding is not more than very low safety significance because the licensee performs periodic inspections of drywell liner and exterior surface coating to ensure that liner corrosion is monitored and controlled. The inspector completed the Phase 1 Initial Screening and Characterization of Findings, of Attachment 0609.04 of Inspection Manual Chapter (IMC) 0609, and screened the finding to Green, very low safety significance. This finding is not more than very low safety significance because the licensee performs periodic inspections of the drywell liner and exterior surface coating to ensure that liner corrosion is monitored and controlled. Exelon has entered this condition into the corrective action process under IR 1440116. This finding has a cross cutting aspect in the area of Human Performance, Work Practices, H.4(c) for not ensuring supervisory and management oversight of work activities, including contractors and plant personnel, such that nuclear safety is supported regarding the application of the strippable coating on the reactor cavity liner. (H.4(c)) (Section 1R08)

Inspection Report# : 2012005 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : September 03, 2013

Oyster Creek
3Q/2013 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded Emergency Diesel Generator Bypass Sight Glass not identified in the Corrective Action Program
Green. The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify a condition adverse to quality. Specifically, from December 10, 2012 to April 4, 2013, Exelon did not identify that the fuel bypass sight glass on the #1 emergency diesel generator (EDG) was partially full. A partially full fuel bypass sight glass indicates that the bypass relief valve is degraded, challenging the operability of the emergency diesel generator because fuel could have bypassed the fuel injectors and therefore prevented the emergency diesel generator from being able to achieve full rated power. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 1497683 and subsequently replaced a degraded relief valve in the bypass sight glass.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of an emergency diesel generator to perform its safety function during its mission time. This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, “Examples of Minor Issues,” because the condition resulted in reasonable doubt of the operability of the #1 emergency diesel generator and additional analysis was necessary to verify operability. The inspectors evaluated the finding using exhibit 2, "Mitigating System Screening Questions" in Appendix A to IMC 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating SSC, where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the degraded emergency diesel generator bypass sight glass in a timely manner on December 10, 2012 through April 4, 2013 when identified by NRC inspectors. [P.1 (a)]. (Section 1R15.1)

Inspection Report# : 2013003 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Alarm Response Procedures did not implement Technical Specification Requirements
The inspectors identified a Green NCV of technical specification 6.8.1a for improperly implementing technical specifications requirements into alarm response procedures for the 125 VDC (volts – direct current) system. The

inspectors determined that the improper implementation of technical specification requirements into alarm response procedures for the 125 VDC system is a performance deficiency that was within Exelon's ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR 1512551.

The inspectors determined this finding was more than minor because the finding affected the procedure quality attribute of the mitigating system cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. The inspectors determined this finding was not a deficiency affecting the design or qualification of a mitigating SSC, did not represent a loss of system or function, did not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time, did not represent an actual loss of function of two separate safety systems for greater than its technical specification allowed outage time, and did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with Exelon's maintenance rule program for greater than 24 hours. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon did not ensure that procedures affecting nuclear safety were accurately maintained. Specifically, technical specifications requirements regarding the battery charger were not accurately reflected in the alarm response procedure. [H.2(c)] (Section 1R15.2)

Inspection Report# : 2013003 *(pdf)*

Significance: G Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Emergency service water non-conformance not entered identified as a condition adverse to quality and not entered into corrective action program
The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," when Exelon did not promptly identify or correct a condition adverse to quality. The inspectors determined that failing to identify and enter a condition adverse to quality into the corrective action program is a performance deficiency that was within Exelon's ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR1481670. This finding is more than minor because it is associated with the design control attribute of the mitigating systems cornerstone and affected the cornerstone objective of "ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences." This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of emergency service water system 2 and additional analysis was necessary to verify operability. The inspectors evaluated the finding using exhibit 2, "Mitigating System Screening Questions" in appendix A to inspection manual chapter 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating SSC, where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance
This finding has a cross-cutting aspect in the area of Problem Identification and
Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the non-conforming emergency service water expansion joint in a timely manner [P.1(a)]. (1R15)

Inspection Report# : 2013002 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Follow Inspection and Torquing of Bolted Connection Procedure
The inspectors identified a Green, non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Exelon did not properly implement procedural controls to ensure adequate thread engagement for standby liquid control (SLC) squib valve flanges. Specifically, SLC squib valve flanges were installed with inadequate thread engagement (stud was not flush with the nut), as required by Exelon's maintenance procedures. Exelon's corrective actions included declaring the system inoperable, entering the issue into the corrective action program (IR 1444861 and 1444862) and immediately replacing the existing bolts with bolts of an appropriate length such that projection through the nut was at least flush.

The performance deficiency was more than minor because if left uncorrected the inadequate thread engagement would have the potential to lead to a more significant safety concern. Specifically, Exelon's evaluation stated that the SLC squib valve spool piece flanges would not have been able to perform their design function under all seismic conditions when the system was required to be operable. In consultation with the Region I senior reactor analyst, the inspectors reviewed this condition using IMC 0609, Attachment G, "Shutdown Operations Significance Determination Process." As the condition occurred during the refueling outage and was identified and corrected before Exelon started up the Oyster Creek reactor, and only existed during the outage when SLC was not required to be operable (November 16 – 27, 2012), the issue screened to very low safety significance (Green). This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program because Exelon did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. Specifically, Exelon did not take appropriate corrective actions, such as replacing bolts during the refueling outage with longer bolts, after the NRC identified a similar concern on the same SLC squib valve spool flanges in September 2012 (IR 1417726). (P.1(d)) (Section 1R15)

Inspection Report# : 2012005 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Application of Strippable Coating to the Refueling Cavity Liner and the Failure to Configure a Valve in the Leakage Collection System Resulting in Increased Potential for Corrosion
Green. A self-revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified because Exelon procedures and work orders were not effective in preventing refueling cavity leakage from overflowing onto the exterior surface of the drywell liner during the refueling outage (1R24) in November 2012. The performance deficiencies that contributed to the finding were inadequate oversight of the contractors applying a strippable coating to the reactor cavity liner and a valve configuration control error on a temporarily installed leakage collection system. Upon discovery, Exelon took immediate corrective actions to open the leakage collection system filter inlet valve and restore reactor cavity liner leakage flow to the reactor building equipment drain tank.

This finding is more than minor because, if left uncorrected, this condition would have the potential to lead to a more significant safety concern. Specifically, the continued wetting of the metallic drywell liner surface could provide an environment conducive to corrosion. This finding is not more than very low safety significance because the licensee performs periodic inspections of drywell liner and exterior surface coating to ensure that liner corrosion is monitored and controlled. The inspector completed the Phase 1 Initial Screening and Characterization of Findings, of Attachment 0609.04 of Inspection Manual Chapter (IMC) 0609, and screened the finding to Green, very low safety significance. This finding is not more than very low safety significance because the licensee performs periodic inspections of the

drywell liner and exterior surface coating to ensure that liner corrosion is monitored and controlled. Exelon has entered this condition into the corrective action process under IR 1440116. This finding has a cross cutting aspect in the area of Human Performance, Work Practices, H.4(c) for not ensuring supervisory and management oversight of work activities, including contractors and plant personnel, such that nuclear safety is supported regarding the application of the strippable coating on the reactor cavity liner. (H.4(c)) (Section 1R08)

Inspection Report# : 2012005 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : December 03, 2013

Oyster Creek
4Q/2013 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Sep 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Physical Change To Security Feature Causes Flood Control Feature To Be Ineffective
The inspectors identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion III, “Design Control,” in that, Exelon did not ensure applicable regulatory requirements and design basis for the emergency diesel generators were correctly translated into instructions. The inspectors determined that Exelon did not ensure that the applicable regulatory requirements and design basis for flood control features were correctly translated into specifications, drawing, procedures and instructions for the installation of a security wall around the emergency diesel generator building which affected the probable maximum precipitation flood protection features of the building was a performance deficiency that was within Exelon’s ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR 1546148. The performance deficiency was more than minor because the finding affected the protection against external factors attribute of the mitigating systems cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences The inspectors determined this finding did involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather initiating event, did not involve the assumption that the protected equipment or safety function was completely failed or unavailable, and did not involve the total loss of any safety function, identified by Exelon through a PRA, IPEEE or similar analysis that contributes to external event initiated core damage accident sequences. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, because Exelon did not thoroughly evaluate a problem such that the resolution addressed the cause and extent of condition of an issue that potentially impacted nuclear safety [P.1(c)].

Inspection Report# : 2013004 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded Emergency Diesel Generator Bypass Sight Glass not identified in the Corrective Action Program
Green. The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify a condition adverse to quality. Specifically, from December 10, 2012 to April 4, 2013, Exelon did not identify that the fuel bypass sight glass on the #1 emergency diesel generator (EDG) was partially full. A partially full fuel bypass sight glass indicates that the bypass relief valve is degraded, challenging the operability of the emergency diesel generator because fuel could have bypassed the fuel injectors and therefore

prevented the emergency diesel generator from being able to achieve full rated power. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 1497683 and subsequently replaced a degraded relief valve in the bypass sight glass.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of an emergency diesel generator to perform its safety function during its mission time. This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, “Examples of Minor Issues,” because the condition resulted in reasonable doubt of the operability of the #1 emergency diesel generator and additional analysis was necessary to verify operability. The inspectors evaluated the finding using exhibit 2, "Mitigating System Screening Questions" in Appendix A to IMC 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating SSC, where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the degraded emergency diesel generator bypass sight glass in a timely manner on December 10, 2012 through April 4, 2013 when identified by NRC inspectors. [P.1 (a)]. (Section 1R15.1)

Inspection Report# : 2013003 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Alarm Response Procedures did not implement Technical Specification Requirements
The inspectors identified a Green NCV of technical specification 6.8.1a for improperly implementing technical specifications requirements into alarm response procedures for the 125 VDC (volts – direct current) system. The inspectors determined that the improper implementation of technical specification requirements into alarm response procedures for the 125 VDC system is a performance deficiency that was within Exelon’s ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR 1512551.

The inspectors determined this finding was more than minor because the finding affected the procedure quality attribute of the mitigating system cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. The inspectors determined this finding was not a deficiency affecting the design or qualification of a mitigating SSC, did not represent a loss of system or function, did not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time, did not represent an actual loss of function of two separate safety systems for greater than its technical specification allowed outage time, and did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with Exelon’s maintenance rule program for greater than 24 hours. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon did not ensure that procedures affecting nuclear safety were accurately maintained. Specifically, technical specifications requirements regarding the battery charger were not accurately reflected in the alarm response procedure. [H.2(c)] (Section 1R15.2)

Inspection Report# : 2013003 *(pdf)*

Significance: G Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Emergency service water non-conformance not entered identified as a condition adverse to quality and not entered into corrective action program
The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," when Exelon did not promptly identify or correct a condition adverse to quality. The inspectors determined that failing to identify and enter a condition adverse to quality into the corrective action program is a performance deficiency that was within Exelon's ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR1481670. This finding is more than minor because it is associated with the design control attribute of the mitigating systems cornerstone and affected the cornerstone objective of "ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences." This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of emergency service water system 2 and additional analysis was necessary to verify operability. The inspectors evaluated the finding using exhibit 2, "Mitigating System Screening Questions" in appendix A to inspection manual chapter 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating SSC, where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance
This finding has a cross-cutting aspect in the area of Problem Identification and
Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the non-conforming emergency service water expansion joint in a timely manner [P.1(a)]. (1R15)

Inspection Report# : 2013002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary.

Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : February 24, 2014

Oyster Creek
1Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Performance of a 50.65 a(4) Risk Evaluation during a Maximum Emergency Generation Action
The inspectors identified a Green non-cited violation of 10 CFR Part 50.65(a)(4), “Requirements for monitoring the effectiveness of maintenance at nuclear power plants,” when Exelon did not assess and manage risk prior to performing maintenance on the B control rod drive pump after the grid operator declared a maximum emergency generation action on January 30, 2014. Exelon entered this issue into their corrective action program as issue report 1614625.

The inspectors determined that Exelon did not assess and manage risk prior to performing maintenance on the B control rod drive pump after the grid operator declared a maximum emergency generation, which was a performance deficiency that was reasonably within Exelon’s ability to foresee and correct. This finding is more than minor because it affected the configuration control attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspector used NRC inspection manual chapter 0609 appendix K, flowchart 2, “Assessment of Risk Management Actions,” to determine the significance of this finding. The inspectors determined that the finding is of very low safety significance (Green) as the finding was associated with risk management actions only and the incremental core damage probability was not greater than 1E-6.

The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, because Exelon did not effectively take corrective actions to address issues in a timely manner commensurate with their safety significance [PI.3]. (Section 1R13)

Inspection Report# : 2014002 *(pdf)*

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Corrective Action to Prevent Recurrence Ineffective to Preclude Repetition of a Significant Condition Adverse to Quality
A self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified when the corrective action to prevent recurrence of a significant condition adverse to quality did not preclude repetition of the event. Specifically, Exelon generated a corrective action to prevent recurrence during a root cause evaluation (RCE) for a reactor scram caused by spiking on intermediate range monitor (IRM) nuclear instruments that occurred in May 2004, and a similar event occurred in October 2013, which was determined to be a repeat of the May 2004 event. Exelon is planning to repair the IRM cables in the next refuel outage. Exelon entered this issue into their corrective action program as issue report 1567196.

The inspectors determined that Exelon did not preclude repetition of a significant condition adverse to quality, which

was a performance deficiency that was reasonably within Exelon's ability to foresee and correct. This performance deficiency is more than minor because it is associated with the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The significance of this finding was determined using NRC IMC 0609 appendix A, exhibit 1. This finding screened as very low safety significance (Green), because the finding did not contribute to both the likelihood of a reactor trip and likelihood that mitigation equipment or functions would not be available.

The finding does not have a cross cutting aspect as it is not reflective of current performance.
Inspection Report# : 2014002 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Physical Change To Security Feature Causes Flood Control Feature To Be Ineffective
The inspectors identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that, Exelon did not ensure applicable regulatory requirements and design basis for the emergency diesel generators were correctly translated into instructions. The inspectors determined that Exelon did not ensure that the applicable regulatory requirements and design basis for flood control features were correctly translated into specifications, drawing, procedures and instructions for the installation of a security wall around the emergency diesel generator building which affected the probable maximum precipitation flood protection features of the building was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR 1546148. The performance deficiency was more than minor because the finding affected the protection against external factors attribute of the mitigating systems cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences The inspectors determined this finding did involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather initiating event, did not involve the assumption that the protected equipment or safety function was completely failed or unavailable, and did not involve the total loss of any safety function, identified by Exelon through a PRA, IPEEE or similar analysis that contributes to external event initiated core damage accident sequences. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, because Exelon did not thoroughly evaluate a problem such that the resolution addressed the cause and extent of condition of an issue that potentially impacted nuclear safety [P.1(c)].

Inspection Report# : 2013004 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded Emergency Diesel Generator Bypass Sight Glass not identified in the Corrective Action Program
Green. The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify a condition adverse to quality. Specifically, from December 10, 2012 to

April 4, 2013, Exelon did not identify that the fuel bypass sight glass on the #1 emergency diesel generator (EDG) was partially full. A partially full fuel bypass sight glass indicates that the bypass relief valve is degraded, challenging the operability of the emergency diesel generator because fuel could have bypassed the fuel injectors and therefore prevented the emergency diesel generator from being able to achieve full rated power. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 1497683 and subsequently replaced a degraded relief valve in the bypass sight glass.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of an emergency diesel generator to perform its safety function during its mission time. This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, “Examples of Minor Issues,” because the condition resulted in reasonable doubt of the operability of the #1 emergency diesel generator and additional analysis was necessary to verify operability. The inspectors evaluated the finding using exhibit 2, "Mitigating System Screening Questions" in Appendix A to IMC 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating SSC, where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the degraded emergency diesel generator bypass sight glass in a timely manner on December 10, 2012 through April 4, 2013 when identified by NRC inspectors. [P.1 (a)]. (Section 1R15.1)

Inspection Report# : 2013003 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Alarm Response Procedures did not implement Technical Specification Requirements
The inspectors identified a Green NCV of technical specification 6.8.1a for improperly implementing technical specifications requirements into alarm response procedures for the 125 VDC (volts – direct current) system. The inspectors determined that the improper implementation of technical specification requirements into alarm response procedures for the 125 VDC system is a performance deficiency that was within Exelon’s ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR 1512551.

The inspectors determined this finding was more than minor because the finding affected the procedure quality attribute of the mitigating system cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. The inspectors determined this finding was not a deficiency affecting the design or qualification of a mitigating SSC, did not represent a loss of system or function, did not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time, did not represent an actual loss of function of two separate safety systems for greater than its technical specification allowed outage time, and did not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with Exelon’s maintenance rule program for greater than 24 hours. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon did not ensure that procedures affecting nuclear safety were accurately maintained. Specifically, technical specifications requirements regarding the battery charger were not accurately reflected in the alarm response procedure. [H.2(c)] (Section 1R15.2)

Inspection Report# : 2013003 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Mar 31, 2009
Identified By: NRC
Item Type: AV Apparent Violation
Apparent Violation for Exelon Plants - 1 (2009 Findings)
For apparent violation #1:
Contrary to the above, on March 31, 2009 Exelon Generation Company, LLC (Exelon) provided incomplete and inaccurate information on the status of its decommissioning funding, as required by 10 CFR 50.75 when it submitted the decommissioning funding status report. Specifically, the March 31, 2009, decommissioning funding status (DFS) report contained inaccurate and incomplete information regarding Exelon's compliance with the requirements of 10 CFR 50.75. The report stated that the amount listed for each of the reactors was determined in accordance with 10 CFR 50.75(b) and the applicable formulas of 10 CFR 50.75(c). However, for each of the 23 reactors, the amount reported was a discounted value that was less than the minimum required amount specified by 10 CFR 50.75(b) and (c). The report was material to the NRC because Exelon under-reported its certified decommissioning amounts by approximately $4 billion, and the NRC staff evaluated the status of Exelon's decommissioning funds based on the inaccurate reports. After identifying the inaccurate information, the NRC required parent company guarantees before

the staff could make its determination that there was reasonable assurance that funds will be available for the decommissioning process.
Inspection Report# : 2012012 *(pdf)*
Inspection Report# : 2013201 *(pdf)*

Significance: N/A Mar 31, 2009
Identified By: NRC
Item Type: AV Apparent Violation
Apparent Violation for Exelon Plants - 2 (2009 Findings)
For apparent violation #2:
Contrary to the above, on March 31, 2007, and March 31, 2005, Exelon Generation Company, LLC (Exelon) provided incomplete and inaccurate information on the status of its decommissioning funding, as required by 10 CFR 50.75 when it submitted the decommissioning funding status reports. Specifically, the March 31, 2007, and March 31, 2005, decommissioning funding status (DFS) reports contained inaccurate and incomplete information regarding Exelon's compliance with the requirements of 10 CFR 50.75. The reports stated that the amount listed for each of the reactors was determined in accordance with 10 CFR 50.75(b) and the applicable formulas of 10 CFR 50.75(c). However, in multiple instances, the amount reported was a discounted value that was less than the minimum required amount specified by 10 CFR 50.75(b) and (c). The reports were material to the NRC because Exelon under-reported its certified decommissioning amounts, and the NRC staff evaluated the status of Exelon's decommissioning funds based on the inaccurate reports. After identifying the inaccurate information, the NRC required parent company guarantees before the staff could make its determination that there was reasonable assurance that funds will be available for the decommissioning process.
Inspection Report# : 2012012 *(pdf)*
Inspection Report# : 2013201 *(pdf)*

Last modified : May 30, 2014

Oyster Creek
2Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Performance of a 50.65 a(4) Risk Evaluation during a Maximum Emergency Generation Action
The inspectors identified a Green non-cited violation of 10 CFR Part 50.65(a)(4), “Requirements for monitoring the effectiveness of maintenance at nuclear power plants,” because Exelon did not reassess and manage risk after the grid operator declared a maximum emergency generation action, prior to performing maintenance on the B control rod drive pump on January 30, 2014. The inspectors identified that Exelon assessment of risk was green; however, if the emergency generation action had been included in the assessment, the risk would have been yellow requiring Exelon to perform compensatory actions to limit the risk to the unit. Exelon entered this issue into their corrective action program as issue report 1614625.
The inspectors determined that Exelon’s failure to assess and manage risk prior to performing maintenance on the B control rod drive pump after the grid operator declared a maximum emergency generation was a performance deficiency that was reasonably within Exelon’s ability to foresee and correct. This finding is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used NRC inspection manual chapter 0609, appendix K, flowchart 2, “Assessment of Risk Management Actions,” to determine the significance of this finding. The inspectors determined that the finding is of very low safety significance (Green).
This finding has a cross-cutting aspect in the area of Human Performance because operators did not stop when faced with uncertain conditions and evaluate and manage risks before proceeding as scheduled. Specifically, the operators continued maintenance without reassessing risk after the inspectors questioned the rationale for not entering the grid emergency procedure [H.11].
Inspection Report# : 2014002 *(pdf)*

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Corrective Action to Prevent Recurrence Ineffective to Preclude Repetition of a Significant Condition Adverse to Quality
A self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified when the corrective action to prevent recurrence of a significant condition adverse to quality did not preclude repetition of the event. Specifically, Exelon generated a corrective action to prevent recurrence during a root cause evaluation (RCE) for a reactor scram caused by spiking on intermediate range monitor (IRM) nuclear instruments that occurred in May 2004, and a similar event occurred in October 2013, which was determined to be a repeat of the May 2004 event. Exelon is planning to repair the IRM cables in the next refuel outage. Exelon entered this issue into their corrective action program as issue report 1567196.

The inspectors determined that Exelon did not preclude repetition of a significant condition adverse to quality, which was a performance deficiency that was reasonably within Exelon’s ability to foresee and correct. This performance

deficiency is more than minor because it is associated with the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The significance of this finding was determined using NRC IMC 0609 appendix A, exhibit 1. This finding screened as very low safety significance (Green), because the finding did not contribute to both the likelihood of a reactor trip and likelihood that mitigation equipment or functions would not be available.

The finding does not have a cross cutting aspect as it is not reflective of current performance.
Inspection Report# : 2014002 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct High Oil Level in D Emergency Service Water Pump Upper Motor Bearing
The NRC inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify and correct a condition adverse to quality. Specifically, Exelon did not identify and correct a high oil level condition caused by water intrusion in the 'D' emergency service water pump upper motor bearing resulting in an inoperable 'D' emergency service water pump. Following identification of the high level by the inspections, Exelon entered this issue into their corrective action program as issue report 1645010. Exelon's corrective action included sealing joints on top of the motor that are susceptible to water intrusion.

The inspectors determined that inadequate identification and resolution of the condition adverse to quality into the corrective action program is a performance deficiency that was within Exelon's ability to foresee and correct. This finding is more than minor because it is associated with the configuration control of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of an emergency service water pump to perform its safety function. This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of emergency service water system. The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green).

The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the high oil level in the emergency service water pump upper motor bearing oil in a timely manner in February and April 2014 [P.1]. (Section 1R15)

Inspection Report# : 2014003 *(pdf)*

Significance: G Sep 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Physical Change To Security Feature Causes Flood Control Feature To Be Ineffective
The inspectors identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in

that, Exelon did not ensure applicable regulatory requirements and design basis for the emergency diesel generators were correctly translated into instructions. The inspectors determined that Exelon did not ensure that the applicable regulatory requirements and design basis for flood control features were correctly translated into specifications, drawing, procedures and instructions for the installation of a security wall around the emergency diesel generator building which affected the probable maximum precipitation flood protection features of the building was a performance deficiency that was within Exelon's ability to foresee and correct. Exelon entered this issue into the corrective action program for resolution as IR 1546148. The performance deficiency was more than minor because the finding affected the protection against external factors attribute of the mitigating systems cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences The inspectors determined this finding did involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding or severe weather initiating event, did not involve the assumption that the protected equipment or safety function was completely failed or unavailable, and did not involve the total loss of any safety function, identified by Exelon through a PRA, IPEEE or similar analysis that contributes to external event initiated core damage accident sequences. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, because Exelon did not thoroughly evaluate a problem such that the resolution addressed the cause and extent of condition of an issue that potentially impacted nuclear safety [P.1(c)].

Inspection Report# : 2013004 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : August 29, 2014

Oyster Creek
3Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Performance of a 50.65 a(4) Risk Evaluation during a Maximum Emergency Generation Action
The inspectors identified a Green non-cited violation of 10 CFR Part 50.65(a)(4), “Requirements for monitoring the effectiveness of maintenance at nuclear power plants,” because Exelon did not reassess and manage risk after the grid operator declared a maximum emergency generation action, prior to performing maintenance on the B control rod drive pump on January 30, 2014. The inspectors identified that Exelon assessment of risk was green; however, if the emergency generation action had been included in the assessment, the risk would have been yellow requiring Exelon to perform compensatory actions to limit the risk to the unit. Exelon entered this issue into their corrective action program as issue report 1614625.
The inspectors determined that Exelon’s failure to assess and manage risk prior to performing maintenance on the B control rod drive pump after the grid operator declared a maximum emergency generation was a performance deficiency that was reasonably within Exelon’s ability to foresee and correct. This finding is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used NRC inspection manual chapter 0609, appendix K, flowchart 2, “Assessment of Risk Management Actions,” to determine the significance of this finding. The inspectors determined that the finding is of very low safety significance (Green).
This finding has a cross-cutting aspect in the area of Human Performance because operators did not stop when faced with uncertain conditions and evaluate and manage risks before proceeding as scheduled. Specifically, the operators continued maintenance without reassessing risk after the inspectors questioned the rationale for not entering the grid emergency procedure [H.11].
Inspection Report# : 2014002 *(pdf)*

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Corrective Action to Prevent Recurrence Ineffective to Preclude Repetition of a Significant Condition Adverse to Quality
A self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified when the corrective action to prevent recurrence of a significant condition adverse to quality did not preclude repetition of the event. Specifically, Exelon generated a corrective action to prevent recurrence during a root cause evaluation (RCE) for a reactor scram caused by spiking on intermediate range monitor (IRM) nuclear instruments that occurred in May 2004, and a similar event occurred in October 2013, which was determined to be a repeat of the May 2004 event. Exelon is planning to repair the IRM cables in the next refuel outage. Exelon entered this issue into their corrective action program as issue report 1567196.

The inspectors determined that Exelon did not preclude repetition of a significant condition adverse to quality, which was a performance deficiency that was reasonably within Exelon’s ability to foresee and correct. This performance

deficiency is more than minor because it is associated with the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The significance of this finding was determined using NRC IMC 0609 appendix A, exhibit 1. This finding screened as very low safety significance (Green), because the finding did not contribute to both the likelihood of a reactor trip and likelihood that mitigation equipment or functions would not be available.

The finding does not have a cross cutting aspect as it is not reflective of current performance.
Inspection Report# : 2014002 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct High Oil Level in D Emergency Service Water Pump Upper Motor Bearing
The NRC inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify and correct a condition adverse to quality. Specifically, Exelon did not identify and correct a high oil level condition caused by water intrusion in the 'D' emergency service water pump upper motor bearing resulting in an inoperable 'D' emergency service water pump. Following identification of the high level by the inspections, Exelon entered this issue into their corrective action program as issue report 1645010. Exelon's corrective action included sealing joints on top of the motor that are susceptible to water intrusion.

The inspectors determined that inadequate identification and resolution of the condition adverse to quality into the corrective action program is a performance deficiency that was within Exelon's ability to foresee and correct. This finding is more than minor because it is associated with the configuration control of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of an emergency service water pump to perform its safety function. This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of emergency service water system. The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green).

The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the high oil level in the emergency service water pump upper motor bearing oil in a timely manner in February and April 2014 [P.1]. (Section 1R15)

Inspection Report# : 2014003 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Sep 30, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Evacuation Time Estimate Submittals
The inspectors identified an NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50.54(q)(2), 10 CFR 50.47 (b)(10), and 10 CFR Part 50, Appendix E, Section IV.4, for failing to maintain the effectiveness of the Oyster Creek emergency plan as a result of failing to provide the station evacuation time estimate (ETE) to the responsible offsite response organizations (OROs) by the required date. Exelon entered this issue into its corrective action program as issue reports 1525923 and 1578649. Additionally, Exelon re-submitted a new revision of the Oyster Creek ETE to the NRC on April 4, 2014, and the NRC's review of that ETE is documented in Section 1EP4 of this report.

The performance deficiency is more than minor because it is associated with the Emergency Preparedness cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The ETE is an input into the development of protective action strategies prior to an accident and to the protective action recommendation decision making process during an accident. Inadequate ETEs have the potential to reduce the effectiveness of public protective actions implemented by the OROs. The finding is determined to be of very low safety significance (Green) because it is a failure to comply with a non-risk significant portion of 10 CFR 50.47(b)(10). The cause of the finding is related to a cross-cutting aspect of Human Performance, Documentation, because Exelon did not appropriately create and maintain complete, accurate, and up-to-date documentation [H.7].

Inspection Report# : 2014004 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : November 26, 2014

Oyster Creek
4Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Reactor Head Cooling Spray Piping Flange Misalignment
The inspectors identified a Green Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly correct a condition adverse to quality associated with reactor head cooling (RHC) spray line 2-inch upper flange installed in a configuration that exceeded the allowable acceptance criteria. Specifically, Exelon staff identified a misaligned flange condition in Issue Report (IR) 845395 but did not correct the deficiency by evaluation, repair or replacement during the 1R22 refueling outage in 2008 or subsequently during the 1R23 and 1R24 refueling outages. Exelon staff completed corrective actions to replace the flange during the 1R25 refueling outage after the NRC inspector questioned the acceptability of this condition. Exelon staff entered this issue into their corrective action program as IR 2385501.

The finding is more than minor because it is associated with the Equipment Performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, misalignment of the RHC spray line flange was greater than that provided in Oyster Creek pipe specifications and resulted in additional stresses in the flange weld. This condition was identified by Exelon staff as a possible contributor to the occurrence of a through wall crack and leak in the N7B upper flange socket weld joint that was identified and repaired in November 2012, but the misalignment was not corrected at that time.

The inspectors completed IMC 0609.04, "Phase 1- Initial Screening and Characterization of Findings," and screened the finding as very low safety significance (Green). Using Exhibit 1 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors answered "No" to Question 1 because the worst-case degradation would be a small leak from a fatigue crack caused by operating thermal and/or mechanical loads combined with cold spring stresses. The inspectors answered "No" to Question 2 of Exhibit 1 because the degradation would only result in a small leak in the socket weld of RHC spray line 2-inch upper flange connection and would not have affected other systems used to mitigate a Loss of Coolant Accident (LOCA). Based on the leakage observed from the through-wall crack in the 2-inch socket weld during the 1R24 outage Reactor Leak Test the reactor coolant leak rate would likely be less than technical specification limits and leakage would not be expected to increase greater than the make-up capacity of a control rod drive pump. Additionally, operations personnel could have manually depressurized the reactor pressure vessel if needed and all other mitigating systems equipment was available. The inspectors determined that this finding had a Problem Identification and Resolution cross-cutting aspect because Exelon did not evaluate and take timely corrective actions to address the long-standing repetitive flange alignment issue of the reactor head cooling spray piping flange connection to RPV head N7B nozzle (P.2). 1R08

Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 12, 2014
Identified By: Self-Revealing

Item Type: FIN Finding
Failure to Evaluate a Temporary Configuration Change
A self-revealing finding (FIN) of very low safety significance was identified for Exelon's failure to implement the temporary configuration change program when a temporary repair was performed on condenser bellows expansion joint Y-1-26. The temporary repair impacted the design function of Y-1-26 and led to failure of the downstream side of the bellows, causing a loss of condenser vacuum and manual reactor scram on July 11, 2014. Exelon replaced both the expansion joint Y-1-26 and the 2nd stage reheater steam supply relief valve V-1-132 on July 11, 2014, during forced outage 1F35. Exelon entered this issue into the corrective action program (IR 2422831).

This finding was more than minor because it was associated with the Design Control attribute of the Initiating Events cornerstone, and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that this finding was of very low safety significance (Green) using Exhibit 1 of NRC IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, because the finding did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g. loss of condenser, loss of feed water). The inspectors determined that this finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience, because Exelon did not systematically and effectively evaluate relevant internal operating experience related to a similar condenser bellows expansion joint failure in 1986. [P.5] (Section 4OA3)
Inspection Report# : 2014010 *(pdf)*

Significance: G Mar 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Performance of a 50.65 a(4) Risk Evaluation during a Maximum Emergency Generation Action
The inspectors identified a Green non-cited violation of 10 CFR Part 50.65(a)(4), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," because Exelon did not reassess and manage risk after the grid operator declared a maximum emergency generation action, prior to performing maintenance on the B control rod drive pump on January 30, 2014. The inspectors identified that Exelon assessment of risk was green; however, if the emergency generation action had been included in the assessment, the risk would have been yellow requiring Exelon to perform compensatory actions to limit the risk to the unit. Exelon entered this issue into their corrective action program as issue report 1614625.
The inspectors determined that Exelon's failure to assess and manage risk prior to performing maintenance on the B control rod drive pump after the grid operator declared a maximum emergency generation was a performance deficiency that was reasonably within Exelon's ability to foresee and correct. This finding is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used NRC inspection manual chapter 0609, appendix K, flowchart 2, "Assessment of Risk Management Actions," to determine the significance of this finding. The inspectors determined that the finding is of very low safety significance (Green).
This finding has a cross-cutting aspect in the area of Human Performance because operators did not stop when faced with uncertain conditions and evaluate and manage risks before proceeding as scheduled. Specifically, the operators continued maintenance without reassessing risk after the inspectors questioned the rationale for not entering the grid emergency procedure [H.11].
Inspection Report# : 2014002 *(pdf)*

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: NCV NonCited Violation

Corrective Action to Prevent Recurrence Ineffective to Preclude Repetition of a Significant Condition Adverse to Quality
A self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified when the corrective action to prevent recurrence of a significant condition adverse to quality did not preclude repetition of the event. Specifically, Exelon generated a corrective action to prevent recurrence during a root cause evaluation (RCE) for a reactor scram caused by spiking on intermediate range monitor (IRM) nuclear instruments that occurred in May 2004, and a similar event occurred in October 2013, which was determined to be a repeat of the May 2004 event. Exelon is planning to repair the IRM cables in the next refuel outage. Exelon entered this issue into their corrective action program as issue report 1567196.

The inspectors determined that Exelon did not preclude repetition of a significant condition adverse to quality, which was a performance deficiency that was reasonably within Exelon's ability to foresee and correct. This performance deficiency is more than minor because it is associated with the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The significance of this finding was determined using NRC IMC 0609 appendix A, exhibit 1. This finding screened as very low safety significance (Green), because the finding did not contribute to both the likelihood of a reactor trip and likelihood that mitigation equipment or functions would not be available.

The finding does not have a cross cutting aspect as it is not reflective of current performance.
Inspection Report# : 2014002 *(pdf)*

Mitigating Systems

Significance:  Dec 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Plant Shutdown Procedure Was Inadequate For Soft Shutdown
The inspectors identified a Non-Cited Violation (NCV) of very low safety significance (Green) of TS 6.8.1, Procedures and Programs, because Exelon did not adequately establish and maintain the plant shutdown procedure. Specifically, the procedure was not adequate in that it did not contain precautions concerning rod insertion when reactor power is below the point of adding heat; operational limitations on plant cooldown when power is below the point of adding heat and contingency actions for re-criticality during shutdown. This issue has been entered into Exelon's Corrective Action Program (CAP) as IR 2412093 and a root cause analysis was conducted.

The finding was determined to be more than minor because the finding affected the procedure quality attribute of the Mitigating System cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Specifically, the plant shutdown procedure did not contain precautions to continuously insert control rods when reactor power is less than the point of adding heat, did not define operational considerations for limiting reactor cooldown and did not contain contingency actions for return to criticality during shutdown. The inspectors determined that this finding resulted in a mismanagement of reactivity by operators in that they demonstrated an inability to anticipate and control changes in reactivity during plant operations; and subsequently used Appendix M to determine the findings significance. The bounding analysis required by Appendix M was performed by a senior reactor analyst. This conservative analysis yielded a change in core damage frequency of 8.0E-7 and the finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Documentation, because Exelon did not ensure that the shutdown procedure contained adequate controls for soft shutdown. [H.7] (Section 4OA2)

Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Procedures Not Implemented During Plant Shutdown
The inspectors identified an NCV of very low safety significance (Green) of TS 6.8.1, Procedures and Programs, because Oyster Creek Operators did not adequately implement procedures when performing a plant shutdown. Specifically, the operators failed to ensure that all personnel on shift had received Just In Time Training (JITT) for their role in the shutdown; operators failed to perform a reactivity Heightened Level Awareness (HLA) brief for the shutdown, and did not insert SRMs in accordance with procedure. These failures contributed to two unanticipated criticalities during the shutdown. This issue has been entered into Exelon's CAP as IR 2412093 and a root cause analysis was conducted.

The finding was determined to be more than minor because the finding affected the procedure quality attribute of the Mitigating System cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Specifically, the failure to implement procedures during the plant shutdown contributed to two unanticipated returns to criticality which required operator action to mitigate. The inspectors determined that this finding resulted in a mismanagement of reactivity by operators in that they demonstrated an inability to anticipate and control changes in reactivity during plant operations, and subsequently used Appendix M to determine the findings significance. The bounding analysis required by Appendix M was performed by a senior reactor analyst. This conservative analysis yielded a change in core damage frequency of 8.0E-7 and the finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because licensed operators did not implement processes, procedures and work instructions during the plant shutdown. [H.8] (Section 4OA2)
Inspection Report# : 2014005 *(pdf)*

Significance: TBD Dec 31, 2014
Identified By: NRC
Item Type: AV Apparent Violation
EDG #2 Fan Shaft Failure Inadequate Review of Change in Maintenance Process Results in Inoperable Emergency Diesel Generator
The inspectors identified a preliminary White finding and an associated apparent violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," because Exelon failed to review the suitability of the application of a different maintenance process at Oyster Creek that was essential to a safety-related function of the Emergency Diesel Generators (EDGs). Specifically, in May 2005, Exelon changed the method for tensioning the cooling fan belt on the EDG from measuring belt deflection to belt frequency and did not verify the adequacy of the acceptance criteria stated for the new method. As a result, Exelon did not identify that the specified belt frequency imposed a stress above the fatigue endurance limit of the shaft material, making the EDG cooling fan shaft susceptible to fatigue and subsequent failure on July 28, 2014. As a consequence, Exelon also violated Technical Specification (TS) 3.7.C, since the EDG#2 was determined to be inoperable for greater than the TS allowed outage time. Exelon's immediate corrective actions included entering the issue into their corrective action program, performing an immediate replacement of the EDG#2 fan shaft, examining the EDG#1 fan shaft for extent of condition, and performing a failure analysis to determine the cause of the broken shaft.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 2 of IMC 0609, Appendix A, "The Significance

Determination Process for Findings At-Power," issued June 19, 2012, the inspectors screened the finding for safety significance and determined that a detailed risk evaluation was required because the finding represented an actual loss of function of a single train for greater than its TS allowed outage time. The detailed risk evaluation concluded that the increase in core damage frequency was 5.1E-6, or White (low to moderate safety significance). This finding does not have an associated cross-cutting aspect because the performance deficiency is not reflective of present performance.

Inspection Report# : 2014005 *(pdf)*
Inspection Report# : 2014009 *(pdf)*

Significance: TBD Dec 31, 2014
Identified By: Licensee
Item Type: AV Apparent Violation
Inadequate Application of Materials, Parts, Equipment, and Processes Associated with the Electromatic Relief Valves
A preliminary yellow finding and associated apparent violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," and Technical Specifications 3.4.B, "Automatic Depressurization System," was identified by Exelon for the failure to establish adequate measures for selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the electromatic relief valves (EMRVs). The violation was also preliminarily determined to meet the IMC 0305, Section 11.05, criteria for treatment as an old design issue. Specifically, on June 20, 2014, during refurbishment of EMRVs that were removed from the plant during the 2012 refueling outage, Exelon personnel identified deficiencies with the 'B' and 'D' EMRVs. As part of the planned EMRV actuator testing and refurbishment activities, Exelon personnel conducted bench testing on June 26, 2014. Both valves did not stroke satisfactorily and resulted in two inoperable EMRVs for approximately 87 days which is greater than the Technical Specifications allowed outage time of 24 hours. Exelon's immediate corrective actions included placing this issue into the corrective action program as issue report 1679428 and redesigning the EMRV actuators to ensure the spring is on the outside of the guide bushing, therefore removing the possibility of the spring to enter the guide bushing area and subsequently jamming the actuator causing valve failure. All of the actuators were replaced with the redesigned actuators during the refueling outage in October 2014. In addition, Exelon issued a 10 CFR Part 21 report to inform the industry of the deficient EMRV actuator design.

This finding was more than minor because it adversely affected the design control quality attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the design deficiency of the EMRVs and the inadequate maintenance process led to the inability of the 'B' and 'D' EMRVs to perform their safety function. The inspectors screened this issue for safety significance in accordance with IMC 0609, Appendix A, Exhibit 2, and determined a detailed risk evaluation was required because the EMRVs were potentially failed or unreliable for greater than the Technical Specification allowed outage time. As described in Attachment 3 to this report, a detailed risk evaluation concluded that the increase in core damage frequency related to failure of the 'B' and 'D' EMRVs is in the mid E-5 range; therefore, this finding was preliminarily determined to have a substantial safety significance (Yellow). Due to the nature of the failures, no recovery credit was assigned. The dominant sequences included loss of main feedwater with failures of the isolation condensers, and failure to depressurize. This finding does not present an immediate safety concern because Exelon replaced all of the actuators with the redesigned actuators during the refueling outage in October 2014. The inspectors determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency was not reflective of current licensee performance. Specifically, the inspectors determined that the performance deficiency existed since original installation of the EMRVs and that an opportunity to identify this issue following original installation was in 2006 when Quad Cities changed the EMRV actuator design due to similar issues. However, the inspectors could not conclude that the issue would have likely been identified during that period since a Part 21 Report was not issued to inform the industry and NRC of the design change and industry operating experience focused on plants that completed or will complete an extended power uprate. [Section 4OA2.1.c]

Inspection Report# : 2014009 *(pdf)*

Significance: G Jun 30, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct High Oil Level in D Emergency Service Water Pump Upper Motor Bearing
The NRC inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify and correct a condition adverse to quality. Specifically, Exelon did not identify and correct a high oil level condition caused by water intrusion in the 'D' emergency service water pump upper motor bearing resulting in an inoperable 'D' emergency service water pump. Following identification of the high level by the inspections, Exelon entered this issue into their corrective action program as issue report 1645010. Exelon's corrective action included sealing joints on top of the motor that are susceptible to water intrusion.

The inspectors determined that inadequate identification and resolution of the condition adverse to quality into the corrective action program is a performance deficiency that was within Exelon's ability to foresee and correct. This finding is more than minor because it is associated with the configuration control of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of an emergency service water pump to perform its safety function. This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of emergency service water system. The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green).

The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the high oil level in the emergency service water pump upper motor bearing oil in a timely manner in February and April 2014 [P.1]. (Section 1R15)

Inspection Report# : 2014003 *(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Sep 30, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Evacuation Time Estimate Submittals
The inspectors identified an NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50.54(q)(2), 10 CFR 50.47 (b)(10), and 10 CFR Part 50, Appendix E, Section IV.4, for failing to maintain the effectiveness of the Oyster Creek emergency plan as a result of failing to provide the station evacuation time estimate (ETE) to the responsible offsite

response organizations (OROs) by the required date. Exelon entered this issue into its corrective action program as issue reports 1525923 and 1578649. Additionally, Exelon re-submitted a new revision of the Oyster Creek ETE to the NRC on April 4, 2014, and the NRC's review of that ETE is documented in Section 1EP4 of this report.

The performance deficiency is more than minor because it is associated with the Emergency Preparedness cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The ETE is an input into the development of protective action strategies prior to an accident and to the protective action recommendation decision making process during an accident. Inadequate ETEs have the potential to reduce the effectiveness of public protective actions implemented by the OROs. The finding is determined to be of very low safety significance (Green) because it is a failure to comply with a non-risk significant portion of 10 CFR 50.47(b)(10). The cause of the finding is related to a cross-cutting aspect of Human Performance, Documentation, because Exelon did not appropriately create and maintain complete, accurate, and up-to-date documentation [H.7].

Inspection Report# : 2014004 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Nov 21, 2014
Identified By: NRC
Item Type: FIN Finding
2014 Oyster Creek Biennial PI&R Inspection Summary
Problem Identification and Resolution

The inspectors concluded that Exelon was generally effective in identifying, evaluating, and resolving problems. Exelon personnel identified problems, entered them into the corrective action program at a low threshold, and in general, prioritized issues commensurate with their safety significance. Exelon appropriately screened issues for operability and reportability, and performed causal analyses that appropriately considered extent of condition, generic

issues, and previous occurrences. The inspectors also determined that Exelon implemented corrective actions to address the problems identified in the corrective action program in a timely manner.

The inspectors concluded that Exelon adequately identified, reviewed, and applied relevant industry operating experience to Oyster Creek operations. In addition, based on those items selected for review, the inspectors determined that Exelon's self-assessments and audits were thorough.

Based on the interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual corrective action program and employee concerns program issues, the inspectors did not identify any indications that site personnel were unwilling to raise safety issues, nor did they identify any conditions that could have had a negative impact on the site's safety conscious work environment.

No findings were identified.

Inspection Report# : 2014008 *(pdf)*

Last modified : February 27, 2015

Oyster Creek
1Q/2015 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Reactor Head Cooling Spray Piping Flange Misalignment
The inspectors identified a Green Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly correct a condition adverse to quality associated with reactor head cooling (RHC) spray line 2-inch upper flange installed in a configuration that exceeded the allowable acceptance criteria. Specifically, Exelon staff identified a misaligned flange condition in Issue Report (IR) 845395 but did not correct the deficiency by evaluation, repair or replacement during the 1R22 refueling outage in 2008 or subsequently during the 1R23 and 1R24 refueling outages. Exelon staff completed corrective actions to replace the flange during the 1R25 refueling outage after the NRC inspector questioned the acceptability of this condition. Exelon staff entered this issue into their corrective action program as IR 2385501.

The finding is more than minor because it is associated with the Equipment Performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, misalignment of the RHC spray line flange was greater than that provided in Oyster Creek pipe specifications and resulted in additional stresses in the flange weld. This condition was identified by Exelon staff as a possible contributor to the occurrence of a through wall crack and leak in the N7B upper flange socket weld joint that was identified and repaired in November 2012, but the misalignment was not corrected at that time.

The inspectors completed IMC 0609.04, "Phase 1- Initial Screening and Characterization of Findings," and screened the finding as very low safety significance (Green). Using Exhibit 1 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors answered "No" to Question 1 because the worst-case degradation would be a small leak from a fatigue crack caused by operating thermal and/or mechanical loads combined with cold spring stresses. The inspectors answered "No" to Question 2 of Exhibit 1 because the degradation would only result in a small leak in the socket weld of RHC spray line 2-inch upper flange connection and would not have affected other systems used to mitigate a Loss of Coolant Accident (LOCA). Based on the leakage observed from the through-wall crack in the 2-inch socket weld during the 1R24 outage Reactor Leak Test the reactor coolant leak rate would likely be less than technical specification limits and leakage would not be expected to increase greater than the make-up capacity of a control rod drive pump. Additionally, operations personnel could have manually depressurized the reactor pressure vessel if needed and all other mitigating systems equipment was available. The inspectors determined that this finding had a Problem Identification and Resolution cross-cutting aspect because Exelon did not evaluate and take timely corrective actions to address the long-standing repetitive flange alignment issue of the reactor head cooling spray piping flange connection to RPV head N7B nozzle (P.2). 1R08

Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 12, 2014
Identified By: Self-Revealing

Item Type: FIN Finding
Failure to Evaluate a Temporary Configuration Change
A self-revealing finding (FIN) of very low safety significance was identified for Exelon's failure to implement the temporary configuration change program when a temporary repair was performed on condenser bellows expansion joint Y-1-26. The temporary repair impacted the design function of Y-1-26 and led to failure of the downstream side of the bellows, causing a loss of condenser vacuum and manual reactor scram on July 11, 2014. Exelon replaced both the expansion joint Y-1-26 and the 2nd stage reheater steam supply relief valve V-1-132 on July 11, 2014, during forced outage 1F35. Exelon entered this issue into the corrective action program (IR 2422831).

This finding was more than minor because it was associated with the Design Control attribute of the Initiating Events cornerstone, and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that this finding was of very low safety significance (Green) using Exhibit 1 of NRC IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, because the finding did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g. loss of condenser, loss of feed water). The inspectors determined that this finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience, because Exelon did not systematically and effectively evaluate relevant internal operating experience related to a similar condenser bellows expansion joint failure in 1986. [P.5] (Section 4OA3)
Inspection Report# : 2014010 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Post Maintenance Testing for Emergency Service Water Pump Breaker
The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" for Exelon's failure to develop an adequate post maintenance test to determine operability of the 'A' emergency service water pump breaker. Specifically, the corrective maintenance work performed on April 16, 2013, did not correct the cause of the failure and Exelon did not perform an adequate post maintenance test to verify conditions had been corrected. As a result, the emergency service water system was returned to service even though it did not meet all the requirements for operability. The issue was not identified and resolved until a subsequent surveillance test on April 17, 2013, which identified a failed breaker. Exelon entered this issue into their corrective action program (IR 2471069). Planned corrective actions include revising work order activities to specify the correct post maintenance test.

This performance deficiency is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone, and adversely affected its objective to ensure the availability and reliability of the systems that respond to initiating events. Specifically, the inadequate post maintenance test for 'A' emergency service water pump breaker on April 16, 2013, led to the 'A' emergency service water pump failing to perform its function during the subsequent surveillance testing on April 17, 2013. The inspectors assessed this finding in accordance with the IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors concluded that this finding did not represent an actual loss of function of the emergency service water system for greater than its technical specification allowed outage time (15 days). Therefore, the inspectors determined that this finding is of very low safety significance (Green). The inspectors determined that this finding had a cross-cutting aspect in the area of Human Performance, Work Management, in that Exelon's work planning and executing of work

activities did not include documented instructions for performing an adequate post maintenance test. [H.5]

Inspection Report# : 2015001 *(pdf)*

Significance: Y Feb 11, 2015
Identified By: NRC
Item Type: VIO Violation
Exelon did not establish adequate measures for the suitability of applications of materials and processes (maintenance) for the EMRV solenoid-operated actuators.

Inspection Report# : 2015007 *(pdf)*

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Plant Shutdown Procedure Was Inadequate For Soft Shutdown
The inspectors identified a Non-Cited Violation (NCV) of very low safety significance (Green) of TS 6.8.1, Procedures and Programs, because Exelon did not adequately establish and maintain the plant shutdown procedure. Specifically, the procedure was not adequate in that it did not contain precautions concerning rod insertion when reactor power is below the point of adding heat; operational limitations on plant cooldown when power is below the point of adding heat and contingency actions for re-criticality during shutdown. This issue has been entered into Exelon's Corrective Action Program (CAP) as IR 2412093 and a root cause analysis was conducted.

The finding was determined to be more than minor because the finding affected the procedure quality attribute of the Mitigating System cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Specifically, the plant shutdown procedure did not contain precautions to continuously insert control rods when reactor power is less than the point of adding heat, did not define operational considerations for limiting reactor cooldown and did not contain contingency actions for return to criticality during shutdown. The inspectors determined that this finding resulted in a mismanagement of reactivity by operators in that they demonstrated an inability to anticipate and control changes in reactivity during plant operations; and subsequently used Appendix M to determine the findings significance. The bounding analysis required by Appendix M was performed by a senior reactor analyst. This conservative analysis yielded a change in core damage frequency of 8.0E-7 and the finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Documentation, because Exelon did not ensure that the shutdown procedure contained adequate controls for soft shutdown. [H.7] (Section 4OA2)

Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Procedures Not Implemented During Plant Shutdown
The inspectors identified an NCV of very low safety significance (Green) of TS 6.8.1, Procedures and Programs, because Oyster Creek Operators did not adequately implement procedures when performing a plant shutdown. Specifically, the operators failed to ensure that all personnel on shift had received Just In Time Training (JITT) for their role in the shutdown; operators failed to perform a reactivity Heightened Level Awareness (HLA) brief for the shutdown, and did not insert SRMs in accordance with procedure. These failures contributed to two unanticipated criticalities during the shutdown. This issue has been entered into Exelon's CAP as IR 2412093 and a root cause

analysis was conducted.

The finding was determined to be more than minor because the finding affected the procedure quality attribute of the Mitigating System cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Specifically, the failure to implement procedures during the plant shutdown contributed to two unanticipated returns to criticality which required operator action to mitigate. The inspectors determined that this finding resulted in a mismanagement of reactivity by operators in that they demonstrated an inability to anticipate and control changes in reactivity during plant operations, and subsequently used Appendix M to determine the findings significance. The bounding analysis required by Appendix M was performed by a senior reactor analyst. This conservative analysis yielded a change in core damage frequency of 8.0E-7 and the finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because licensed operators did not implement processes, procedures and work instructions during the plant shutdown. [H.8] (Section 4OA2)
Inspection Report# : 2014005 *(pdf)*

Significance: TBD Dec 31, 2014
Identified By: NRC
Item Type: AV Apparent Violation
EDG #2 Fan Shaft Failure Inadequate Review of Change in Maintenance Process Results in Inoperable Emergency Diesel Generator
The inspectors identified a preliminary White finding and an associated apparent violation of 10 CFR 50, Appendix B, Criterion III, “Design Control,” because Exelon failed to review the suitability of the application of a different maintenance process at Oyster Creek that was essential to a safety-related function of the Emergency Diesel Generators (EDGs). Specifically, in May 2005, Exelon changed the method for tensioning the cooling fan belt on the EDG from measuring belt deflection to belt frequency and did not verify the adequacy of the acceptance criteria stated for the new method. As a result, Exelon did not identify that the specified belt frequency imposed a stress above the fatigue endurance limit of the shaft material, making the EDG cooling fan shaft susceptible to fatigue and subsequent failure on July 28, 2014. As a consequence, Exelon also violated Technical Specification (TS) 3.7.C, since the EDG#2 was determined to be inoperable for greater than the TS allowed outage time. Exelon’s immediate corrective actions included entering the issue into their corrective action program, performing an immediate replacement of the EDG#2 fan shaft, examining the EDG#1 fan shaft for extent of condition, and performing a failure analysis to determine the cause of the broken shaft.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). In accordance with IMC 0609.04, “Initial Characterization of Findings,” and Exhibit 2 of IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” issued June 19, 2012, the inspectors screened the finding for safety significance and determined that a detailed risk evaluation was required because the finding represented an actual loss of function of a single train for greater than its TS allowed outage time. The detailed risk evaluation concluded that the increase in core damage frequency was 5.1E-6, or White (low to moderate safety significance). This finding does not have an associated cross-cutting aspect because the performance deficiency is not reflective of present performance.

Inspection Report# : 2014005 *(pdf)*
Inspection Report# : 2014009 *(pdf)*

Significance: TBD Dec 31, 2014
Identified By: NRC
Item Type: AV Apparent Violation
Inadequate Application of Materials, Parts, Equipment, and Processes Associated with the Electromatic Relief

Valves
A preliminary yellow finding and associated apparent violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," and Technical Specifications 3.4.B, "Automatic Depressurization System," was identified by Exelon for the failure to establish adequate measures for selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the electromatic relief valves (EMRVs). The violation was also preliminarily determined to meet the IMC 0305, Section 11.05, criteria for treatment as an old design issue. Specifically, on June 20, 2014, during refurbishment of EMRVs that were removed from the plant during the 2012 refueling outage, Exelon personnel identified deficiencies with the 'B' and 'D' EMRVs. As part of the planned EMRV actuator testing and refurbishment activities, Exelon personnel conducted bench testing on June 26, 2014. Both valves did not stroke satisfactorily and resulted in two inoperable EMRVs for approximately 87 days which is greater than the Technical Specifications allowed outage time of 24 hours. Exelon's immediate corrective actions included placing this issue into the corrective action program as issue report 1679428 and redesigning the EMRV actuators to ensure the spring is on the outside of the guide bushing, therefore removing the possibility of the spring to enter the guide bushing area and subsequently jamming the actuator causing valve failure. All of the actuators were replaced with the redesigned actuators during the refueling outage in October 2014. In addition, Exelon issued a 10 CFR Part 21 report to inform the industry of the deficient EMRV actuator design.

This finding was more than minor because it adversely affected the design control quality attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the design deficiency of the EMRVs and the inadequate maintenance process led to the inability of the 'B' and 'D' EMRVs to perform their safety function. The inspectors screened this issue for safety significance in accordance with IMC 0609, Appendix A, Exhibit 2, and determined a detailed risk evaluation was required because the EMRVs were potentially failed or unreliable for greater than the Technical Specification allowed outage time. As described in Attachment 3 to this report, a detailed risk evaluation concluded that the increase in core damage frequency related to failure of the 'B' and 'D' EMRVs is in the mid E-5 range; therefore, this finding was preliminarily determined to have a substantial safety significance (Yellow). Due to the nature of the failures, no recovery credit was assigned. The dominant sequences included loss of main feedwater with failures of the isolation condensers, and failure to depressurize. This finding does not present an immediate safety concern because Exelon replaced all of the actuators with the redesigned actuators during the refueling outage in October 2014. The inspectors determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency was not reflective of current licensee performance. Specifically, the inspectors determined that the performance deficiency existed since original installation of the EMRVs and that an opportunity to identify this issue following original installation was in 2006 when Quad Cities changed the EMRV actuator design due to similar issues. However, the inspectors could not conclude that the issue would have likely been identified during that period since a Part 21 Report was not issued to inform the industry and NRC of the design change and industry operating experience focused on plants that completed or will complete an extended power uprate. [Section 4OA2.1.c]

Inspection Report# : 2014009 *(pdf)*

Significance: G Jun 30, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify and Correct High Oil Level in D Emergency Service Water Pump Upper Motor Bearing
The NRC inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify and correct a condition adverse to quality. Specifically, Exelon did not identify and correct a high oil level condition caused by water intrusion in the 'D' emergency service water pump upper motor bearing resulting in an inoperable 'D' emergency service water pump. Following identification of the high level by the inspections, Exelon entered this issue into their corrective action program as issue report 1645010. Exelon's corrective

action included sealing joints on top of the motor that are susceptible to water intrusion.

The inspectors determined that inadequate identification and resolution of the condition adverse to quality into the corrective action program is a performance deficiency that was within Exelon's ability to foresee and correct. This finding is more than minor because it is associated with the configuration control of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of an emergency service water pump to perform its safety function. This issue was also similar to Example 3j of NRC IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of emergency service water system. The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green).

The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not identify the issue associated with the high oil level in the emergency service water pump upper motor bearing oil in a timely manner in February and April 2014 [P.1]. (Section 1R15)

Inspection Report# : 2014003 *(pdf)*

Barrier Integrity

Significance: G Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Post Maintenance Test Results Were Not Evaluated to Assure that Technical Specifications Requirements Were Satisfied.
The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," when Exelon did not document and adequately evaluate test results to assure that test requirements had been satisfied. Specifically, Exelon did not perform the proper post maintenance test procedure to assure that the requirements of Technical Specification 4.5.G.3 were satisfied following installation of a temporary modification to secondary containment. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 2440643. Corrective actions include revising the process to perform the correct post maintenance test to ensure Technical Specification 4.5.G.3 is met.

This finding is more than minor because it is associated with the configuration control (Standby Gas Trains) attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609.04, "Initial Characterization of Findings," issued June 19, 2012, and IMC 0609, Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process: Phase 1 Initial Screening and Characterization of Findings," issued May 9, 2014. Because the finding degraded the ability to close or isolate secondary containment, the inspectors were required to further assess the finding using IMC 0609, Appendix H, "Containment Integrity Significance Determination Process," issued May 6, 2004. The inspectors determined that this finding is of very low safety significance (Green) because the decay heat values were low, given that the unit had been shut down for approximately three days, and reactor water level was greater than that required for movement of irradiated fuel assemblies within the reactor pressure vessel. This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon personnel did not perform the post maintenance test specified by the work order. [H.8]

Inspection Report# : 2015001 *(pdf)*

Significance: N/A Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Incomplete 50.72 and 50.73 Reports Associated with Secondary Containment Integrity
The inspectors identified a Severity Level IV NCV of 10 CFR 50.9(a) in that Exelon did not provide complete information in reports submitted per 10 CFR 50.72 and 10 CFR 50.73. Specifically, a licensee event report (LER) submitted on November 18, 2014, did not discuss a separate, partially opened secondary containment door that was discovered during the same time frame, which could have prevented the fulfillment of the safety function of secondary containment, and therefore was required to be discussed in the original LER. Exelon entered this issue into their corrective action program as IR 2440641. Planned corrective actions include revising the original LER to add a discussion of the partially opened secondary containment door.

The inspectors determined that not providing a complete report in accordance with 10 CFR 50.9(a) is a performance deficiency that was reasonably within Exelon's ability to foresee and correct and should have been prevented. Because the issue had the potential to affect the NRC's ability to perform its regulatory oversight function, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. In accordance with Section 2.2.2.d of the NRC Enforcement Policy, the inspectors determined that the performance deficiency identified with the reporting aspect of the event is a Severity Level IV violation because it is of more than minor concern with relatively inappreciable potential safety significance and is related to findings that were determined to be more than minor issues. In accordance with IMC 0612, Appendix B, this issue was not assigned a cross-cutting aspect.

Inspection Report# : 2015001 *(pdf)*

Emergency Preparedness

Significance: G Sep 30, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Evacuation Time Estimate Submittals
The inspectors identified an NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50.54(q)(2), 10 CFR 50.47 (b)(10), and 10 CFR Part 50, Appendix E, Section IV.4, for failing to maintain the effectiveness of the Oyster Creek emergency plan as a result of failing to provide the station evacuation time estimate (ETE) to the responsible offsite response organizations (OROs) by the required date. Exelon entered this issue into its corrective action program as issue reports 1525923 and 1578649. Additionally, Exelon re-submitted a new revision of the Oyster Creek ETE to the NRC on April 4, 2014, and the NRC's review of that ETE is documented in Section 1EP4 of this report.

The performance deficiency is more than minor because it is associated with the Emergency Preparedness cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The ETE is an input into the development of protective action strategies prior to an accident and to the protective action recommendation decision making process during an accident. Inadequate ETEs have the potential to reduce the effectiveness of public protective actions implemented by the OROs. The finding is determined to be of very low safety significance (Green) because it is a failure to comply with a non-risk significant portion of 10 CFR 50.47(b)(10). The cause of the finding is related to a cross-cutting aspect of Human Performance, Documentation,

because Exelon did not appropriately create and maintain complete, accurate, and up-to-date documentation [H.7].

Inspection Report# : 2014004 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Nov 21, 2014
Identified By: NRC
Item Type: FIN Finding
2014 Oyster Creek Biennial PI&R Inspection Summary
Problem Identification and Resolution

The inspectors concluded that Exelon was generally effective in identifying, evaluating, and resolving problems. Exelon personnel identified problems, entered them into the corrective action program at a low threshold, and in general, prioritized issues commensurate with their safety significance. Exelon appropriately screened issues for operability and reportability, and performed causal analyses that appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors also determined that Exelon implemented corrective actions to address the problems identified in the corrective action program in a timely manner.

The inspectors concluded that Exelon adequately identified, reviewed, and applied relevant industry operating experience to Oyster Creek operations. In addition, based on those items selected for review, the inspectors determined that Exelon's self-assessments and audits were thorough.

Based on the interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual corrective action program and employee concerns program issues, the inspectors did not identify any indications that site personnel were unwilling to raise safety issues, nor did they identify any conditions that could have had a negative impact on the site's safety conscious work environment.

No findings were identified.

Inspection Report# : 2014008 *(pdf)*

Last modified : June 16, 2015

Oyster Creek
2Q/2015 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Reactor Head Cooling Spray Piping Flange Misalignment
The inspectors identified a Green Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly correct a condition adverse to quality associated with reactor head cooling (RHC) spray line 2-inch upper flange installed in a configuration that exceeded the allowable acceptance criteria. Specifically, Exelon staff identified a misaligned flange condition in Issue Report (IR) 845395 but did not correct the deficiency by evaluation, repair or replacement during the 1R22 refueling outage in 2008 or subsequently during the 1R23 and 1R24 refueling outages. Exelon staff completed corrective actions to replace the flange during the 1R25 refueling outage after the NRC inspector questioned the acceptability of this condition. Exelon staff entered this issue into their corrective action program as IR 2385501.

The finding is more than minor because it is associated with the Equipment Performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, misalignment of the RHC spray line flange was greater than that provided in Oyster Creek pipe specifications and resulted in additional stresses in the flange weld. This condition was identified by Exelon staff as a possible contributor to the occurrence of a through wall crack and leak in the N7B upper flange socket weld joint that was identified and repaired in November 2012, but the misalignment was not corrected at that time.

The inspectors completed IMC 0609.04, "Phase 1- Initial Screening and Characterization of Findings," and screened the finding as very low safety significance (Green). Using Exhibit 1 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors answered "No" to Question 1 because the worst-case degradation would be a small leak from a fatigue crack caused by operating thermal and/or mechanical loads combined with cold spring stresses. The inspectors answered "No" to Question 2 of Exhibit 1 because the degradation would only result in a small leak in the socket weld of RHC spray line 2-inch upper flange connection and would not have affected other systems used to mitigate a Loss of Coolant Accident (LOCA). Based on the leakage observed from the through-wall crack in the 2-inch socket weld during the 1R24 outage Reactor Leak Test the reactor coolant leak rate would likely be less than technical specification limits and leakage would not be expected to increase greater than the make-up capacity of a control rod drive pump. Additionally, operations personnel could have manually depressurized the reactor pressure vessel if needed and all other mitigating systems equipment was available. The inspectors determined that this finding had a Problem Identification and Resolution cross-cutting aspect because Exelon did not evaluate and take timely corrective actions to address the long-standing repetitive flange alignment issue of the reactor head cooling spray piping flange connection to RPV head N7B nozzle (P.2). 1R08

Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 12, 2014
Identified By: Self-Revealing

Item Type: FIN Finding
Failure to Evaluate a Temporary Configuration Change
A self-revealing finding (FIN) of very low safety significance was identified for Exelon's failure to implement the temporary configuration change program when a temporary repair was performed on condenser bellows expansion joint Y-1-26. The temporary repair impacted the design function of Y-1-26 and led to failure of the downstream side of the bellows, causing a loss of condenser vacuum and manual reactor scram on July 11, 2014. Exelon replaced both the expansion joint Y-1-26 and the 2nd stage reheater steam supply relief valve V-1-132 on July 11, 2014, during forced outage 1F35. Exelon entered this issue into the corrective action program (IR 2422831).

This finding was more than minor because it was associated with the Design Control attribute of the Initiating Events cornerstone, and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that this finding was of very low safety significance (Green) using Exhibit 1 of NRC IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, because the finding did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g. loss of condenser, loss of feed water). The inspectors determined that this finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience, because Exelon did not systematically and effectively evaluate relevant internal operating experience related to a similar condenser bellows expansion joint failure in 1986. [P.5] (Section 4OA3)
Inspection Report# : 2014010 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Post Maintenance Testing for Emergency Service Water Pump Breaker
The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" for Exelon's failure to develop an adequate post maintenance test to determine operability of the 'A' emergency service water pump breaker. Specifically, the corrective maintenance work performed on April 16, 2013, did not correct the cause of the failure and Exelon did not perform an adequate post maintenance test to verify conditions had been corrected. As a result, the emergency service water system was returned to service even though it did not meet all the requirements for operability. The issue was not identified and resolved until a subsequent surveillance test on April 17, 2013, which identified a failed breaker. Exelon entered this issue into their corrective action program (IR 2471069). Planned corrective actions include revising work order activities to specify the correct post maintenance test.

This performance deficiency is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone, and adversely affected its objective to ensure the availability and reliability of the systems that respond to initiating events. Specifically, the inadequate post maintenance test for 'A' emergency service water pump breaker on April 16, 2013, led to the 'A' emergency service water pump failing to perform its function during the subsequent surveillance testing on April 17, 2013. The inspectors assessed this finding in accordance with the IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors concluded that this finding did not represent an actual loss of function of the emergency service water system for greater than its technical specification allowed outage time (15 days). Therefore, the inspectors determined that this finding is of very low safety significance (Green). The inspectors determined that this finding had a cross-cutting aspect in the area of Human Performance, Work Management, in that Exelon's work planning and executing of work

activities did not include documented instructions for performing an adequate post maintenance test. [H.5]

Inspection Report# : 2015001 *(pdf)*

Significance: Y Feb 11, 2015
Identified By: NRC
Item Type: VIO Violation
Exelon did not establish adequate measures for the suitability of applications of materials and processes (maintenance) for the EMRV solenoid-operated actuators.
In its March 13, 2015 letter (ML 15084A 107), Exelon stated that the NRC did not apply realistic assumptions in the calculation of common cause failure (CCF) probabilities, leading to an overestimated risk significance for the EMRV finding. Exelon provided four points, which are described verbatim, below. The Risk Assessment Standardization Project (RASP) methodology requires that an observed equipment failure or degradation to be classified as having either the potential for CCF or not as applied to the associated CCF group. If it is qualitatively determined that the potential for CCF exists, the Standardized Plant Analysis Risk (SPAR) model quantitative methodology assumes with 100% certainty that CCF exists for the observed issue. This methodology therefore represents a binary input (i.e., assume either no CCF or complete CCF due to the observed issue), with no clear process for evaluating CCF in a potential "middle ground" based on available information related to the cause and extent of condition of the failure.

The full conditional CCF probability is applied to all components in the group with the failed component, regardless of the details or cause associated with the failure. This approach for determining the conditional CCF probabilities (i.e., alpha factors) used in Probabilistic Risk Assessment and SPAR models includes all inter-component dependencies not captured explicitly in the models. Applying the full conditional CCF probability calculated in the SPAR model in this manner is likely to overestimate the risk impact of a failure in an SOP evaluation. Using the Alpha methodology (as was applied in this case) for determining the conditional CCF probabilities is not in the spirit of achieving realistic results. Key investigative facts provided by Exelon are not addressed in the inspection report and do not appear to have been incorporated into the SPAR CCF calculation including 1) no history for similar failure in more than 40 years of plant operation; 2) no evidence of abnormally high vibration in the operating cycle leading up to the failure of the two EMRVs; 3) the time-dependent nature of the failure mechanism and 4) the fact that the remaining three EMRVs exhibited significantly less degradation, passed their operability test, and were known to not be in a failed state. Lastly, following plant shutdown on July 7, 2014 to support extent of condition inspection, all five EMRV actuators stroked satisfactorily during as-found testing. NRC RESPONSE. Overall, the NRC agrees with several of the points raised by Exelon regarding the methodology used to calculate CCF. Namely, that the methodology for calculating CCF requires a failure mode to be considered a CCF or not a CCF, with no middle ground. However, the NRC believes that the methodology that was used represents the best peer-reviewed methodology available for CCF analysis, and accurately depicts risk associated with CCF events. None of the information provided caused NRC to question the validity of the original methodology or results described in inspection report 05000219/2014009 (ML 15042A231). Additional details are provided below. A CCF is defined as a condition when two or more components fail within the probabilistic risk assessment (PRA) mission time window as a result of a shared cause. The NRC agrees that the risk assessment standardization project (RASP) methodology used to calculate the risk requires that the failure mode be classified as a CCF or not a CCF. In other words, either the failure mode has the potential to affect the other components in the common cause group, or it is an independent failure. (As Exelon stated, it is a "binary input" with no "middle ground.") In the case of the EMRV failures, the NRC determined that the cause of the observed degradation of the B and D EMRVs had the potential to affect the remaining EMRVs and, therefore, constituted a CCF. It is important to note that, in order for an equipment failure to be considered a CCF, the exact failure mechanism does not have to be shared. In other words, the subcomponent or part that fails does not have to be the same; it is the cause of failure that is shared. In this case both the parts that failed and the cause of failure were the same, namely a valve design not suited for a high vibration environment. As described in NUREG/CR-6268, Rev. 1, Section 7.4, the available models for calculating CCF include the Basic Parameter model, the Beta model, the Multiple Greek Letter model, and the Alpha Factor model. All of these models provide estimates

of the probability of a common cause event occurring, given a specific number of failed components within a specific common cause grouping. In the case of Oyster Creek, the finding represents the observed failure of two valves within a group size of five valves. The NRC used the Alpha Factor model to calculate CCF because it is (1) a multi-parameter model that can handle any redundancy level, (2) based on ratios of failure rates that make the assessment of its parameters easier when no statistical data are available, and (3) a simpler statistical model and produces more accurate point estimates as well as uncertainty distributions compared to other parametric models that have the above two properties. The NRC believes the Alpha Factor model is the best peer reviewed methodology available for calculating CCF, and it appropriately characterizes risk impact of a failure in a significance determination process (SOP) evaluation. The NRC does not agree with Exelon's contention that applying the full conditional CCF probability calculated in the SPAR model overestimated the risk impact of the EMRV failure.

The NRC considered the key investigative facts provided by Exelon, and concluded that the new information would not alter the original significance determination. Specifically, the NRC continues to conclude that the cause of the failure of the B and D EMRVs had the potential to affect the remaining EMRVs, and the time-dependent nature was appropriately accounted for. Although there were no previously identified failures of EMRVs at Oyster Creek, it was determined that cause of the valve failures was an inadequate design. This design has essentially been unchanged over the life of the plant. Past work orders documenting the refurbishment of these valves identified excessive wear of the springs and/or guide post that required their replacement. Although only two of the five EMRVs failed, all showed signs of abnormal wear. Lastly, the NRC notes that a successful operability test of redundant or similar components in the common cause component group does not reduce the conditional CCF probability of the remaining components to zero. The time dependent failure of the valves was accounted for in accordance with the guidance provided in RASP Volume 1, Section 2.4.
Specifically, for a failure that could have occurred at any time since the component was last operated (e.g., the time of actual failure cannot be determined due to the nature of the failure mechanism), the exposure time (T) is equal to one-half of the time period since the last successful functional operation of the component (T/2) plus repair time. This exposure time determination approach is appropriate for standby or periodically operated components that fail due to a degradation mechanism that gradually affects the component during the standby time period and is considered appropriate for this evaluation. In summary, the NRC carefully reviewed the response provided by Exelon in the March 13, 2015 letter, and determined that the new information provided did not alter our original risk assessment as described in inspection report 05000219/2014009 (ML15042A231).

Inspection Report# : 2015007 *(pdf)*

Significance: W Feb 11, 2015
Identified By: NRC
Item Type: VIO Violation
Inadequate Review of Change in Maintenance Process Results in Inoperable Emergency Diesel Generator
ENCLOSURE 3 NOTICE OF VIOLATION
Exelon Generation Company, LLC. Oyster Creek Nuclear Generating Station
Docket No. 50-219 License No. DPR-16 EA-14-186

During an NRC inspection conducted from October 1, 2014 - December 31, 2014, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:
10 CFR 50, Appendix B, Criterion Ill, "Design Control," requires, in part, that measures shall be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems, and components, and that measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program. ·

Technical Specification 3.7.C.2.b requires that if one diesel generator becomes inoperable during power operation, the reactor may remain in operation for a period not to exceed 7 days.

Contrary to the above, from May 13, 2005, to September 9, 2014, Exelon did not review the suitability of the application of a different maintenance process at Oyster Creek that was essential to a safety-related function of the Emergency Diesel Generators (EDGs). Specifically, Exelon changed the method for tensioning the cooling fan belt on the EOG from measuring belt deflection to belt frequency and did not verify the adequacy of the acceptance criteria stated for the new method. As a result, Exelon did not identify that the specified belt frequency imposed a stress above the fatigue endurance limit of the shaft material, making the EOG cooling fan shaft susceptible to fatigue and failure on July 28, 2014. As a consequence of this design control issue, Exelon also violated Technical Specification 3.7.C, because Exelon operated Oyster Creek with EOG No. 2 inoperable for greater than 7 days.

This violation is associated with a White Significance Determination Process finding.

The NRC has concluded that the information regarding: (1) the reason for the violation; (2) the corrective actions taken and planned to correct the violation and prevent recurrence; and, (3) the date when full compliance was achieved, is already adequately addressed on the docket in NRC Inspection Report 05000244/2014005, in your letter dated March 13, 2015, and in the letter transmitting this Notice of Violation (Notice). Therefore, you are not required to respond to this Notice.
Inspection Report# : 2015007 *(pdf)*

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Plant Shutdown Procedure Was Inadequate For Soft Shutdown
The inspectors identified a Non-Cited Violation (NCV) of very low safety significance (Green) of TS 6.8.1, Procedures and Programs, because Exelon did not adequately establish and maintain the plant shutdown procedure. Specifically, the procedure was not adequate in that it did not contain precautions concerning rod insertion when reactor power is below the point of adding heat; operational limitations on plant cooldown when power is below the point of adding heat and contingency actions for re-criticality during shutdown. This issue has been entered into Exelon's Corrective Action Program (CAP) as IR 2412093 and a root cause analysis was conducted.

The finding was determined to be more than minor because the finding affected the procedure quality attribute of the Mitigating System cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Specifically, the plant shutdown procedure did not contain precautions to continuously insert control rods when reactor power is less than the point of adding heat, did not define operational considerations for limiting reactor cooldown and did not contain contingency actions for return to criticality during shutdown. The inspectors determined that this finding resulted in a mismanagement of reactivity by operators in that they demonstrated an inability to anticipate and control changes in reactivity during plant operations; and subsequently used Appendix M to determine the findings significance. The bounding analysis required by Appendix M was performed by a senior reactor analyst. This conservative analysis yielded a change in core damage frequency of 8.0E-7 and the finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Documentation, because Exelon did not ensure that the shutdown procedure contained adequate controls for soft shutdown. [H.7] (Section 4OA2)

Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 31, 2014
Identified By: NRC

Item Type: NCV Non-Cited Violation
Procedures Not Implemented During Plant Shutdown
The inspectors identified an NCV of very low safety significance (Green) of TS 6.8.1, Procedures and Programs, because Oyster Creek Operators did not adequately implement procedures when performing a plant shutdown. Specifically, the operators failed to ensure that all personnel on shift had received Just In Time Training (JITT) for their role in the shutdown; operators failed to perform a reactivity Heightened Level Awareness (HLA) brief for the shutdown, and did not insert SRMs in accordance with procedure. These failures contributed to two unanticipated criticalities during the shutdown. This issue has been entered into Exelon's CAP as IR 2412093 and a root cause analysis was conducted.

The finding was determined to be more than minor because the finding affected the procedure quality attribute of the Mitigating System cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Specifically, the failure to implement procedures during the plant shutdown contributed to two unanticipated returns to criticality which required operator action to mitigate. The inspectors determined that this finding resulted in a mismanagement of reactivity by operators in that they demonstrated an inability to anticipate and control changes in reactivity during plant operations, and subsequently used Appendix M to determine the findings significance. The bounding analysis required by Appendix M was performed by a senior reactor analyst. This conservative analysis yielded a change in core damage frequency of 8.0E-7 and the finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because licensed operators did not implement processes, procedures and work instructions during the plant shutdown. [H.8] (Section 4OA2)
Inspection Report# : 2014005 *(pdf)*

Barrier Integrity

Significance: N/A Apr 24, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Use of an Analytical Method to Determine the Core Operating Limits Without Prior NRC Approval
Severity Level lV. The NRC identified a Severity Level lV non-cited violation (NCV) of Technical Specification (TS) 6.9.1.f.2 in that Exelon did not obtain NRC approval prior to using a specific analytical method to determine the core operating limits. Specifically, Exelon used an analytical method (TRACG04P) to determine the core operating limits (the average power range monitor protection settings which were identified in the Core Operating Limits Report (COLR)); however, that particular analytical method was not previously reviewed and approved by the NRC prior to Exelon's use. Exelon submitted a corrective action issue report (IR) to evaluate the condition (IR2482042).

The team determined that Exelon did not comply with TS 6.9.1.f.2 requirements in that Exelon used an analytical method to determine the core operating limits without prior NRC approval. The team determined that this was a performance deficiency that was within Exelon's ability to foresee and correct. Because the issue had the potential to affect the NRC's ability to perform its regulatory function, the team evaluated this performance deficiency in accordance with the traditional enforcement process. Using the Enforcement Manual, the team characterized the violation as Severity Level IV because the underlying analytical method required NRC approval prior to use. Because this violation involves the traditional enforcement process and does not have an underlying technical violation that would be considered more-than-minor within the Reactor Oversight Process (ROP), the team did not assign a cross-cutting aspect to this violation in accordance with IMC 0612, "Power Reactor Inspection Reports," Section 07.03.c (Section 1R17.1).
Inspection Report# : 2015008 *(pdf)*

Significance: G Apr 24, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Untimely Corrective Actions to Restore Design Conformance of Two SDV Vent & Drain Valves Pressure Regulator Valves
Green. The NRC identified an NCV of Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly correct a condition adverse to quality. Specifically, corrective actions to restore design conformance of scram discharge volume (SDV) vent and drain valve pressure regulator valves V-6-961 and V-6-962 were not taken at the first opportunity of sufficient duration which was refueling outage 25 (1R25). Additionally, justification of the basis for deferral of corrective actions beyond the restart from 1R25 on October 2014, was not documented, reviewed, or approved by site management and/or oversight organizations as required by station procedure OP-AA-108-115, Section 4.5.5. Consequently, two non-conforming pressure regulator valves which perform a safety-related function remained installed following plant startup from 1R25, without appropriate evaluation and approval. Immediate corrective action included licensee determination that V-6-961 and 962 and the associated SDV vent and drain valves (V-15-119 and 121) remained operable, but non-conforming. Exelon entered the issue into their corrective action program as IR 2482851.

The finding was more than minor because it was associated with the design control and barrier performance attributes of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of ensuring the operational capability of the containment barrier to protect the public from radionuclide releases caused by accidents or events. Additionally, the finding was similar to example 5.c in Appendix E of Inspection Manual Chapter (IMC) 0612, because the control rod drive system was returned to service following 1R25 with two non-conforming (non-safety-related) pressure regulator valves installed in a safety-related application. The team determined the finding was of very low safety significance because it did not affect the reactor coolant system (RCS) boundary; did not affect the radiological barrier function of the control room, auxiliary building, or spent fuel pool systems or boundaries; and did not represent an actual open pathway in containment or involve a reduction in the function of hydrogen igniters. The team assigned a cross-cutting aspect in the area of Human Performance, Consistent Process (aspect H.13) because the organization did not use a consistent systematic approach to evaluate component operability after Exelon upgraded the classification of three pressure regulator valves from a non-safety to a safety-related status. (Section 1R17.2.2)
Inspection Report# : 2015008 *(pdf)*

Significance: G Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Post Maintenance Test Results Were Not Evaluated to Assure that Technical Specifications Requirements Were Satisfied.
The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," when Exelon did not document and adequately evaluate test results to assure that test requirements had been satisfied. Specifically, Exelon did not perform the proper post maintenance test procedure to assure that the requirements of Technical Specification 4.5.G.3 were satisfied following installation of a temporary modification to secondary containment. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 2440643. Corrective actions include revising the process to perform the correct post maintenance test to ensure Technical Specification 4.5.G.3 is met.

This finding is more than minor because it is associated with the configuration control (Standby Gas Trains) attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609.04, "Initial Characterization of Findings," issued June 19, 2012, and IMC 0609, Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process: Phase 1 Initial Screening and Characterization of Findings," issued May 9, 2014. Because the finding

degraded the ability to close or isolate secondary containment, the inspectors were required to further assess the finding using IMC 0609, Appendix H, "Containment Integrity Significance Determination Process," issued May 6, 2004. The inspectors determined that this finding is of very low safety significance (Green) because the decay heat values were low, given that the unit had been shut down for approximately three days, and reactor water level was greater than that required for movement of irradiated fuel assemblies within the reactor pressure vessel. This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon personnel did not perform the post maintenance test specified by the work order. [H.8]
Inspection Report# : 2015001 *(pdf)*

Significance: N/A Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Incomplete 50.72 and 50.73 Reports Associated with Secondary Containment Integrity
The inspectors identified a Severity Level IV NCV of 10 CFR 50.9(a) in that Exelon did not provide complete information in reports submitted per 10 CFR 50.72 and 10 CFR 50.73. Specifically, a licensee event report (LER) submitted on November 18, 2014, did not discuss a separate, partially opened secondary containment door that was discovered during the same time frame, which could have prevented the fulfillment of the safety function of secondary containment, and therefore was required to be discussed in the original LER. Exelon entered this issue into their corrective action program as IR 2440641. Planned corrective actions include revising the original LER to add a discussion of the partially opened secondary containment door.

The inspectors determined that not providing a complete report in accordance with 10 CFR 50.9(a) is a performance deficiency that was reasonably within Exelon's ability to foresee and correct and should have been prevented. Because the issue had the potential to affect the NRC's ability to perform its regulatory oversight function, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. In accordance with Section 2.2.2.d of the NRC Enforcement Policy, the inspectors determined that the performance deficiency identified with the reporting aspect of the event is a Severity Level IV violation because it is of more than minor concern with relatively inappreciable potential safety significance and is related to findings that were determined to be more than minor issues. In accordance with IMC 0612, Appendix B, this issue was not assigned a cross-cutting aspect.

Inspection Report# : 2015001 *(pdf)*

Emergency Preparedness

Significance: G Sep 30, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Evacuation Time Estimate Submittals
The inspectors identified an NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50.54(q)(2), 10 CFR 50.47 (b)(10), and 10 CFR Part 50, Appendix E, Section IV.4, for failing to maintain the effectiveness of the Oyster Creek emergency plan as a result of failing to provide the station evacuation time estimate (ETE) to the responsible offsite response organizations (OROs) by the required date. Exelon entered this issue into its corrective action program as issue reports 1525923 and 1578649. Additionally, Exelon re-submitted a new revision of the Oyster Creek ETE to the NRC on April 4, 2014, and the NRC's review of that ETE is documented in Section 1EP4 of this report.

The performance deficiency is more than minor because it is associated with the Emergency Preparedness cornerstone

attribute of procedure quality and adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The ETE is an input into the development of protective action strategies prior to an accident and to the protective action recommendation decision making process during an accident. Inadequate ETEs have the potential to reduce the effectiveness of public protective actions implemented by the OROs. The finding is determined to be of very low safety significance (Green) because it is a failure to comply with a non-risk significant portion of 10 CFR 50.47(b)(10). The cause of the finding is related to a cross-cutting aspect of Human Performance, Documentation, because Exelon did not appropriately create and maintain complete, accurate, and up-to-date documentation [H.7].

Inspection Report# : 2014004 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Nov 21, 2014
Identified By: NRC
Item Type: FIN Finding
2014 Oyster Creek Biennial PI&R Inspection Summary
Problem Identification and Resolution

The inspectors concluded that Exelon was generally effective in identifying, evaluating, and resolving problems. Exelon personnel identified problems, entered them into the corrective action program at a low threshold, and in general, prioritized issues commensurate with their safety significance. Exelon appropriately screened issues for operability and reportability, and performed causal analyses that appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors also determined that Exelon implemented corrective actions to address the problems identified in the corrective action program in a timely manner.

The inspectors concluded that Exelon adequately identified, reviewed, and applied relevant industry operating experience to Oyster Creek operations. In addition, based on those items selected for review, the inspectors

determined that Exelon's self-assessments and audits were thorough.

Based on the interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual corrective action program and employee concerns program issues, the inspectors did not identify any indications that site personnel were unwilling to raise safety issues, nor did they identify any conditions that could have had a negative impact on the site's safety conscious work environment.

No findings were identified.

Inspection Report# : 2014008 *(pdf)*

Last modified : August 07, 2015

Oyster Creek
3Q/2015 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Reactor Water Cleanup Procedure Not Followed Resulting in a Level Transient
A self-revealing NCV of Technical Specification 6.8.1(a), "Procedures and Programs," was identified because Exelon did not follow procedure 303, "Reactor Cleanup Demineralizer System," during the system restoration on March 26, 2015. Specifically, during startup from a forced outage (1F36), Exelon did not follow procedure 303, which required correct valve lineups for system restoration of reactor water cleanup (RWCU) after system isolation. This resulted in decreasing reactor water level, which was automatically terminated by a second RWCU isolation. Exelon entered this issue into the corrective action program. Planned corrective actions include enhancing operator training in system knowledge and procedure compliance and revising startup procedures.

This finding is determined to be more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, Exelon did not properly lineup the RWCU system after isolation, which resulted in a water level transient and challenging the critical safety function of inventory control. This finding is determined to be of very low safety significance (Green), because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition.

This finding has a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, because Exelon did not recognize and plan for the possibility of mistakes, or implement appropriate error reduction tools. Specifically, the operators did not stop and fully communicate plant condition after the initial RWCU isolation. Consequently, operators opened the RWCU system inlet valve due to the increasing water level without following procedure guidance.
Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Reset of the Automatic Voltage Regulator Controller Led to an Automatic Reactor Scram
A self-revealing finding was identified because Exelon did not properly screen work in accordance with MA-AA-716-010, "Maintenance Planning." Specifically, on September 12, 2014, Exelon did not screen the automatic voltage regulator's (AVR) human machine interface (HMI) post-maintenance test per the maintenance planning procedure. As a result, on October 12, 2014, Exelon personnel performing the post-maintenance test did not have a work order, which would have included plant configurations and limitations associated with the test. This led to an automatic reactor scram. Exelon entered this issue into the corrective action program. Planned corrective actions include reinforcing with work planners that a work order is required for similar work activities.

This finding was determined to be more than minor because it is associated with the human performance attribute of

the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during plant operation. Specifically, resetting the three AVR controllers caused an automatic plant scram. This finding is determined to be of very low safety significance (Green), because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. This finding has a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, because Exelon did not recognize and plan for the possibility of mistakes, or implement appropriate error reduction tools. Specifically, on October 12, 2014, Exelon personnel did not stop when faced with the uncertain situation of the HMI screen that did not respond as expected.

Inspection Report# : 2015002 *(pdf)*

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Reactor Head Cooling Spray Piping Flange Misalignment
The inspectors identified a Green Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly correct a condition adverse to quality associated with reactor head cooling (RHC) spray line 2-inch upper flange installed in a configuration that exceeded the allowable acceptance criteria. Specifically, Exelon staff identified a misaligned flange condition in Issue Report (IR) 845395 but did not correct the deficiency by evaluation, repair or replacement during the 1R22 refueling outage in 2008 or subsequently during the 1R23 and 1R24 refueling outages. Exelon staff completed corrective actions to replace the flange during the 1R25 refueling outage after the NRC inspector questioned the acceptability of this condition. Exelon staff entered this issue into their corrective action program as IR 2385501.

The finding is more than minor because it is associated with the Equipment Performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, misalignment of the RHC spray line flange was greater than that provided in Oyster Creek pipe specifications and resulted in additional stresses in the flange weld. This condition was identified by Exelon staff as a possible contributor to the occurrence of a through wall crack and leak in the N7B upper flange socket weld joint that was identified and repaired in November 2012, but the misalignment was not corrected at that time.

The inspectors completed IMC 0609.04, "Phase 1- Initial Screening and Characterization of Findings," and screened the finding as very low safety significance (Green). Using Exhibit 1 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors answered "No" to Question 1 because the worst-case degradation would be a small leak from a fatigue crack caused by operating thermal and/or mechanical loads combined with cold spring stresses. The inspectors answered "No" to Question 2 of Exhibit 1 because the degradation would only result in a small leak in the socket weld of RHC spray line 2-inch upper flange connection and would not have affected other systems used to mitigate a Loss of Coolant Accident (LOCA). Based on the leakage observed from the through-wall crack in the 2-inch socket weld during the 1R24 outage Reactor Leak Test the reactor coolant leak rate would likely be less than technical specification limits and leakage would not be expected to increase greater than the make-up capacity of a control rod drive pump. Additionally, operations personnel could have manually depressurized the reactor pressure vessel if needed and all other mitigating systems equipment was available. The inspectors determined that this finding had a Problem Identification and Resolution cross-cutting aspect because Exelon did not evaluate and take timely corrective actions to address the long-standing repetitive flange alignment issue of the reactor head cooling spray piping flange connection to RPV head N7B nozzle (P.2). 1R08

Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 12, 2014
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Evaluate a Temporary Configuration Change
A self-revealing finding (FIN) of very low safety significance was identified for Exelon's failure to implement the temporary configuration change program when a temporary repair was performed on condenser bellows expansion joint Y-1-26. The temporary repair impacted the design function of Y-1-26 and led to failure of the downstream side of the bellows, causing a loss of condenser vacuum and manual reactor scram on July 11, 2014. Exelon replaced both the expansion joint Y-1-26 and the 2nd stage reheater steam supply relief valve V-1-132 on July 11, 2014, during forced outage 1F35. Exelon entered this issue into the corrective action program (IR 2422831).

This finding was more than minor because it was associated with the Design Control attribute of the Initiating Events cornerstone, and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that this finding was of very low safety significance (Green) using Exhibit 1 of NRC IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012, because the finding did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g. loss of condenser, loss of feed water). The inspectors determined that this finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience, because Exelon did not systematically and effectively evaluate relevant internal operating experience related to a similar condenser bellows expansion joint failure in 1986. [P.5] (Section 4OA3)
Inspection Report# : 2014010 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Non-Conservative Temperature Input in the Electromatic Relief Valve Voltage Drop Calculation
The inspectors identified an NCV of 10 Code of Federal Regulations (CFR) 50, Appendix B, Criterion III, "Design Control," in that Exelon's measures for verifying the adequacy of design of the electromatic relief valve (EMRV) voltage drop calculation were inadequate. Specifically, non-conservative temperature inputs were used for the safety related EMRV direct current voltage drop calculation, which reduced the margin of available voltage to the EMRV solenoids. Exelon entered this issue into the corrective action program for resolution as issue report 2522756, and corrective actions included revising the calculation to include the correct temperature values and conduct an extent of condition of other voltage drop calculations that could have similar temperature values.

The performance deficiency is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, lower voltage to the EMRV solenoid at higher temperatures could affect the reliability and capability of the EMRV to perform its design function. In addition, the performance deficiency is determined to be more than minor because it is similar to example 3.j of NRC IMC 0612, Appendix E, "Example of Minor Issues," in that as a result of the calculation errors and the magnitude of the decrease of margin, there was a reasonable doubt on the operability of the component. The inspectors evaluated the finding using 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix A, Exhibit 2, "Mitigating System Screening Questions." The inspectors determined that this finding is a deficiency that affected the design or qualification of a mitigating structure, system or component (SSC), where the SSC maintained

its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding is not assigned a cross-cutting aspect because it is not reflective of current performance. Specifically, the last time Exelon had an opportunity to evaluate this issue was in 2010 when Exelon identified that the EMRV solenoid voltage had low margin.

Inspection Report# : 2015003 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: FIN Finding
Inadequate Assessment of Degraded 4k Emergency Switchgear Roll-Up Door Floor Gasket
The inspectors identified a finding associated with Exelon procedure, OP-AA-108-115, "Operability Determinations," because Exelon did not adequately assess a degraded floor gasket for the 'D' emergency 4 kilovolt (kV) switchgear roll-up door. Specifically, Exelon did not adequately assess the flood and fire functionality of the degraded gasket, which is credited to provide protection to safety-related 'D' emergency 4kV switchgear during a postulated internal flood event and to contain the carbon dioxide (CO2) gaseous suppression system during a postulated fire within the 'D' switchgear room. Exelon entered this issue into the corrective action program.

Planned corrective actions include reinforcing the operability determination procedure and enhancing operator training in fire and flood functionality of gaskets. Additional corrective actions included repairing the gasket and performing a detailed analysis of the ability of degraded gasket to meet its flooding and fire function.

This finding is more than minor because it is associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the degraded floor gasket could have resulted in increased water level in the 'D' emergency 4kV switchgear room during a postulated internal flood due to a fire water pipe rupture, therefore affecting the reliability of the 'D' emergency 4k switchgear to perform its safety function. In addition, the degraded floor gasket could have resulted in CO2 leakage out of the 'D' emergency 4k switchgear room during a postulated fire in that room, therefore affecting the reliability of the 'D' emergency 4k switchgear gaseous suppression system to perform its safety function. The inspectors determined that this finding is of very low safety significance (Green) because it is a deficiency that affected the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, because Exelon did not thoroughly evaluate issues to ensure that resolutions address the causes and extent of conditions commensurate with their safety significance. Specifically, Exelon staff did not thoroughly evaluate the issue associated with the degraded floor gasket for fire and flood functionality.
Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Failure Rates Exceed Twenty Percent for Annual Requalification Exam
A self-revealing finding was identified associated with inadequate licensed operator performance during licensed operator requalification exams in accordance with TQ-AA-150, "Operator Training Program." Specifically, two of seven crews failed the simulator scenario portion of the requalification examinations. As an immediate corrective action, the crews that failed were restricted from licensed duties. Exelon entered this issue into the corrective action program, and facility training staff remediated the crews (the crews were retrained and successfully retested), and those crews were returned to licensed duties.

This finding is more than minor because it is associated with the human performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, two of seven crews failed to demonstrate a satisfactory understanding of the knowledge and abilities required to safely operate the facility under normal, abnormal, and emergency conditions.

The inspectors determined the finding to be of very low safety significance (Green) because it is related to requalification exam results, did not result in a failure rate of greater than forty percent, and the two crews were remediated (i.e., the crews were retrained and successfully retested) prior to returning to shift. This finding has a cross-cutting aspect in the area of Human Performance, Training, because Exelon staff did not provide adequate operator requalification training to maintain a knowledgeable, technically competent workforce.
Inspection Report# : 2015002 *(pdf)*

Significance: G Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Post Maintenance Testing for Emergency Service Water Pump Breaker
The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" for Exelon's failure to develop an adequate post maintenance test to determine operability of the 'A' emergency service water pump breaker. Specifically, the corrective maintenance work performed on April 16, 2013, did not correct the cause of the failure and Exelon did not perform an adequate post maintenance test to verify conditions had been corrected. As a result, the emergency service water system was returned to service even though it did not meet all the requirements for operability. The issue was not identified and resolved until a subsequent surveillance test on April 17, 2013, which identified a failed breaker. Exelon entered this issue into their corrective action program (IR 2471069). Planned corrective actions include revising work order activities to specify the correct post maintenance test.

This performance deficiency is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone, and adversely affected its objective to ensure the availability and reliability of the systems that respond to initiating events. Specifically, the inadequate post maintenance test for 'A' emergency service water pump breaker on April 16, 2013, led to the 'A' emergency service water pump failing to perform its function during the subsequent surveillance testing on April 17, 2013. The inspectors assessed this finding in accordance with the IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors concluded that this finding did not represent an actual loss of function of the emergency service water system for greater than its technical specification allowed outage time (15 days). Therefore, the inspectors determined that this finding is of very low safety significance (Green). The inspectors determined that this finding had a cross-cutting aspect in the area of Human Performance, Work Management, in that Exelon's work planning and executing of work activities did not include documented instructions for performing an adequate post maintenance test. [H.5]

Inspection Report# : 2015001 *(pdf)*

Significance: Y Feb 11, 2015
Identified By: NRC
Item Type: VIO Violation
Exelon did not establish adequate measures for the suitability of applications of materials and processes (maintenance) for the EMRV solenoid-operated actuators.
(Initial Entry)
The NRC identified a preliminary Yellow finding and associated apparent violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," and Technical Specification 3.4.B, "Automatic Depressurization System," because the

station did not establish adequate measures for selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the electromatic relief valves (EMRVs). The violation was also preliminarily determined to meet the IMC 0305, Section 11.05, criteria for treatment as an old design issue. Specifically, on June 20, 2014, during refurbishment of EMRVs that were removed from the plant during the 2012 refueling outage, Exelon personnel identified deficiencies with the 'B' and 'D' EMRVs. As part of the planned EMRV actuator testing and refurbishment activities, Exelon personnel conducted bench testing on June 26, 2014. Both valves did not stroke satisfactorily and resulted in two inoperable EMRVs for greater than the Technical Specification allowed outage time of 24 hours. Exelon's immediate corrective actions included placing this issue into the corrective action program as issue report 1679428 and redesigning the EMRV actuators to ensure the spring is on the outside of the guide bushing, therefore removing the possibility of the spring entering the guide bushing area and subsequently jamming the actuator causing valve failure. All of the actuators were replaced with redesigned actuators during the refueling outage in October 2014. In addition, Exelon issued a 10 CFR Part 21 report to inform the industry of the deficient EMRV actuator design.

This finding is more than minor because it adversely affected the design control quality attribute of the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the design deficiency of the EMRVs and the inadequate maintenance process led to the inability of the 'B' and 'D' EMRVs to perform their safety function. The inspectors screened this issue for safety significance in accordance with IMC 0609, Appendix A, Exhibit 2, and determined a detailed risk evaluation was required because the EMRVs were potentially failed or unreliable for greater than the Technical Specification allowed outage time. As described in Attachment 3 to this report, a detailed risk evaluation concluded that the increase in core damage frequency (CDF) related to failure of the 'B' and 'D' EMRVs is in the mid E-5 range; therefore, this finding was preliminarily determined to have a substantial safety significance (Yellow). Due to the nature of the failures, no recovery credit was assigned. The dominant sequences included loss of main feedwater with failures of the isolation condensers, and failure to depressurize. This finding does not represent an immediate safety concern because Exelon replaced all of the actuators with the redesigned actuators during the refueling outage in October 2014. Further, the NRC is considering treatment of this finding as an old design issue because the condition existed since the original installation of the EMRVs, and is not indicative of current licensee performance. Additional details are discussed in Attachment 1. The inspectors determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency was not reflective of current licensee performance. Specifically, the inspectors determined that the performance deficiency existed since original installation of the EMRVs. Although an opportunity to identify this issue following original installation occurred in 2006 when Quad Cities changed the EMRV actuator design due to similar issues, the inspectors could not conclude that the issue would have likely been identified during that period since a Part 21 Report was not issued to inform the industry and NRC of the design change and industry operating experience focused on plants that completed or were scheduled to complete an extended power uprate.
(IR 05000219/2014009 dated February 11, 2015)

(First Update)
The finding was determined to be of substantial safety significance (Yellow). As described in Attachment 3 to this report, a detailed risk evaluation concluded that the increase in CDF related to failure of the 'B' and 'D' EMRVs is in the mid E-5 range; therefore, this finding was preliminarily determined to have a substantial safety significance (Yellow). Due to the nature of the failures, no recovery credit was assigned. The dominant sequences included loss of main feedwater with failures of the isolation condensers, and failure to depressurize. This finding does not present an immediate safety concern because Exelon replaced all of the actuators with redesigned actuators during the refueling outage in October 2014.
(IR 05000219/2015007 dated April 27, 2015)

Inspection Report# : 2014009 *(pdf)*
Inspection Report# : 2015007 *(pdf)*

Significance: W Feb 11, 2015
Identified By: NRC
Item Type: VIO Violation
Inadequate Review of Change in Maintenance Process Results in Inoperable Emergency Diesel Generator
(Initial Entry)
The inspectors identified a preliminary White finding and an associated apparent violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," because Exelon staff did not review the suitability of the application of a different maintenance process at Oyster Creek that was essential to a safety-related function of the emergency diesel generators (EDG). Specifically, in May 2005, Exelon staff changed the method for tensioning the cooling fan belt on the EDG from measuring belt deflection to belt frequency and did not verify the adequacy of the acceptance criteria stated for the new method. As a result, Exelon staff did not identify that the specified belt frequency imposed a stress above the fatigue endurance limit of the shaft material, making the EDG cooling fan shaft susceptible to fatigue and subsequent failure on July 28, 2014. As a consequence, Exelon also violated Technical Specification 3.7.C, because the EDG No. 2 was determined to be inoperable for greater than the technical specification allowed outage time. Exelon's immediate corrective actions included entering the issue into their corrective action program as issue report (IR) 1686101, replacing the EDG No. 2 fan shaft, examining the EDG No.1 fan shaft for extent of condition, and performing a failure analysis to determine the causes
of the broken shaft.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 2 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," issued June 19, 2012, the inspectors screened the finding for safety significance and determined that a detailed risk evaluation was required because the finding represented an actual loss of function of a single train for greater than its technical specification allowed outage time. The detailed risk evaluation concluded that the increase in core damage frequency was 5.1E-6, or White (low to moderate safety significance). This finding does not have an associated cross-cutting aspect because the performance deficiency occurred in 2005 and is not reflective of present performance.
(IR 05000219/2014005 dated February 11, 2015)

(First Update)
The finding was determined to be of low to moderate safety significance (White). Based upon the detailed risk evaluation, the calculated change in core damage frequency for this issue was 5.1E-6, or low to moderate safety significance (White). The dominant internal core damage sequences involved various losses of offsite power initiating events followed by failure of the remaining 4160 Volt AC emergency bus. The dominant external event core damage sequences involved switchyard fires that contributed to loss of offsite power. The time that the EDG was available before failure was credited in the analysis and afforded operators more time to recover offsite power, which lowered the risk of this issue. Also, diverse make-up sources to the isolation condenser and availability of the Forked River Combustion Turbine Generators helped mitigate the risk. An exposure time of 44 days (42 days plus two days for corrective maintenance) was used for the time the EDG could have met its 24 hour mission time. A detailed analysis is contained in Attachment 1 of this report.
(IR 05000219/2015007 dated April 27, 2015)

(Final Update)

The NRC staff performed this supplemental inspection in accordance with IP 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," to assess Exelon's evaluation of a performance deficiency and violation of White significance, associated with the Mitigating Systems cornerstone, which was identified in the fourth quarter 2014 integrated inspection report (Agencywide Documents Access and Management System (ADAMS)

Accession Number ML15042A072). The finding was associated with an inadequate review of a change in maintenance process that caused an inoperable emergency diesel generator (EDG). The final significance determination and follow-up assessment letter for this finding issued on April 27, 2015, documented that Oyster Creek transitioned to the Regulatory Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix, retroactive to the fourth quarter of 2014.

Based on the results of the inspection, the inspectors concluded that Exelon had adequately performed a root cause analysis of the event, and corrective actions, both completed and planned, were reasonable to address the related issues. Based on the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," dated October 18, 2013, and the results of this inspection, the White finding will be closed effective October 1, 2015. (IR 05000219/2015009 dated October 15, 2015)
Inspection Report# : 2014005 *(pdf)*
Inspection Report# : 2015007 *(pdf)*
Inspection Report# : 2015009 *(pdf)*

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Plant Shutdown Procedure Was Inadequate For Soft Shutdown
The inspectors identified a Non-Cited Violation (NCV) of very low safety significance (Green) of TS 6.8.1, Procedures and Programs, because Exelon did not adequately establish and maintain the plant shutdown procedure. Specifically, the procedure was not adequate in that it did not contain precautions concerning rod insertion when reactor power is below the point of adding heat; operational limitations on plant cooldown when power is below the point of adding heat and contingency actions for re-criticality during shutdown. This issue has been entered into Exelon's Corrective Action Program (CAP) as IR 2412093 and a root cause analysis was conducted.

The finding was determined to be more than minor because the finding affected the procedure quality attribute of the Mitigating System cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Specifically, the plant shutdown procedure did not contain precautions to continuously insert control rods when reactor power is less than the point of adding heat, did not define operational considerations for limiting reactor cooldown and did not contain contingency actions for return to criticality during shutdown. The inspectors determined that this finding resulted in a mismanagement of reactivity by operators in that they demonstrated an inability to anticipate and control changes in reactivity during plant operations; and subsequently used Appendix M to determine the findings significance. The bounding analysis required by Appendix M was performed by a senior reactor analyst. This conservative analysis yielded a change in core damage frequency of 8.0E-7 and the finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Documentation, because Exelon did not ensure that the shutdown procedure contained adequate controls for soft shutdown. [H.7] (Section 4OA2)

Inspection Report# : 2014005 *(pdf)*

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Procedures Not Implemented During Plant Shutdown
The inspectors identified an NCV of very low safety significance (Green) of TS 6.8.1, Procedures and Programs, because Oyster Creek Operators did not adequately implement procedures when performing a plant shutdown. Specifically, the operators failed to ensure that all personnel on shift had received Just In Time Training (JITT) for their role in the shutdown; operators failed to perform a reactivity Heightened Level Awareness (HLA) brief for the

shutdown, and did not insert SRMs in accordance with procedure. These failures contributed to two unanticipated criticalities during the shutdown. This issue has been entered into Exelon's CAP as IR 2412093 and a root cause analysis was conducted.

The finding was determined to be more than minor because the finding affected the procedure quality attribute of the Mitigating System cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Specifically, the failure to implement procedures during the plant shutdown contributed to two unanticipated returns to criticality which required operator action to mitigate. The inspectors determined that this finding resulted in a mismanagement of reactivity by operators in that they demonstrated an inability to anticipate and control changes in reactivity during plant operations, and subsequently used Appendix M to determine the findings significance. The bounding analysis required by Appendix M was performed by a senior reactor analyst. This conservative analysis yielded a change in core damage frequency of 8.0E-7 and the finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because licensed operators did not implement processes, procedures and work instructions during the plant shutdown. [H.8] (Section 4OA2)
Inspection Report# : 2014005 *(pdf)*

Barrier Integrity

Significance: N/A Apr 24, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Use of an Analytical Method to Determine the Core Operating Limits Without Prior NRC Approval
Severity Level lV. The NRC identified a Severity Level lV non-cited violation (NCV) of Technical Specification (TS) 6.9.1.f.2 in that Exelon did not obtain NRC approval prior to using a specific analytical method to determine the core operating limits. Specifically, Exelon used an analytical method (TRACG04P) to determine the core operating limits (the average power range monitor protection settings which were identified in the Core Operating Limits Report (COLR)); however, that particular analytical method was not previously reviewed and approved by the NRC prior to Exelon's use. Exelon submitted a corrective action issue report (IR) to evaluate the condition (IR2482042).

The team determined that Exelon did not comply with TS 6.9.1.f.2 requirements in that Exelon used an analytical method to determine the core operating limits without prior NRC approval. The team determined that this was a performance deficiency that was within Exelon's ability to foresee and correct. Because the issue had the potential to affect the NRC's ability to perform its regulatory function, the team evaluated this performance deficiency in accordance with the traditional enforcement process. Using the Enforcement Manual, the team characterized the violation as Severity Level IV because the underlying analytical method required NRC approval prior to use. Because this violation involves the traditional enforcement process and does not have an underlying technical violation that would be considered more-than-minor within the Reactor Oversight Process (ROP), the team did not assign a cross-cutting aspect to this violation in accordance with IMC 0612, "Power Reactor Inspection Reports," Section 07.03.c (Section 1R17.1).
Inspection Report# : 2015008 *(pdf)*

Significance: G Apr 24, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Untimely Corrective Actions to Restore Design Conformance of Two SDV Vent & Drain Valves Pressure Regulator Valves

Green. The NRC identified an NCV of Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly correct a condition adverse to quality. Specifically, corrective actions to restore design conformance of scram discharge volume (SDV) vent and drain valve pressure regulator valves V-6-961 and V-6-962 were not taken at the first opportunity of sufficient duration which was refueling outage 25 (1R25). Additionally, justification of the basis for deferral of corrective actions beyond the restart from 1R25 on October 2014, was not documented, reviewed, or approved by site management and/or oversight organizations as required by station procedure OP-AA-108-115, Section 4.5.5. Consequently, two non-conforming pressure regulator valves which perform a safety-related function remained installed following plant startup from 1R25, without appropriate evaluation and approval. Immediate corrective action included licensee determination that V-6-961 and 962 and the associated SDV vent and drain valves (V-15-119 and 121) remained operable, but non-conforming. Exelon entered the issue into their corrective action program as IR 2482851.

The finding was more than minor because it was associated with the design control and barrier performance attributes of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of ensuring the operational capability of the containment barrier to protect the public from radionuclide releases caused by accidents or events. Additionally, the finding was similar to example 5.c in Appendix E of Inspection Manual Chapter (IMC) 0612, because the control rod drive system was returned to service following 1R25 with two non-conforming (non-safety-related) pressure regulator valves installed in a safety-related application. The team determined the finding was of very low safety significance because it did not affect the reactor coolant system (RCS) boundary; did not affect the radiological barrier function of the control room, auxiliary building, or spent fuel pool systems or boundaries; and did not represent an actual open pathway in containment or involve a reduction in the function of hydrogen igniters. The team assigned a cross-cutting aspect in the area of Human Performance, Consistent Process (aspect H.13) because the organization did not use a consistent systematic approach to evaluate component operability after Exelon upgraded the classification of three pressure regulator valves from a non-safety to a safety-related status. (Section 1R17.2.2)
Inspection Report# : 2015008 *(pdf)*

Significance: G Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Post Maintenance Test Results Were Not Evaluated to Assure that Technical Specifications Requirements Were Satisfied.
The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," when Exelon did not document and adequately evaluate test results to assure that test requirements had been satisfied. Specifically, Exelon did not perform the proper post maintenance test procedure to assure that the requirements of Technical Specification 4.5.G.3 were satisfied following installation of a temporary modification to secondary containment. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 2440643. Corrective actions include revising the process to perform the correct post maintenance test to ensure Technical Specification 4.5.G.3 is met.

This finding is more than minor because it is associated with the configuration control (Standby Gas Trains) attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609.04, "Initial Characterization of Findings," issued June 19, 2012, and IMC 0609, Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process: Phase 1 Initial Screening and Characterization of Findings," issued May 9, 2014. Because the finding degraded the ability to close or isolate secondary containment, the inspectors were required to further assess the finding using IMC 0609, Appendix H, "Containment Integrity Significance Determination Process," issued May 6, 2004. The inspectors determined that this finding is of very low safety significance (Green) because the decay heat values were low, given that the unit had been shut down for approximately three days, and reactor water level was greater than that required for movement of irradiated fuel assemblies within the reactor pressure vessel. This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon personnel did not

perform the post maintenance test specified by the work order. [H.8]
Inspection Report# : 2015001 *(pdf)*

Significance: N/A Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Incomplete 50.72 and 50.73 Reports Associated with Secondary Containment Integrity
The inspectors identified a Severity Level IV NCV of 10 CFR 50.9(a) in that Exelon did not provide complete information in reports submitted per 10 CFR 50.72 and 10 CFR 50.73. Specifically, a licensee event report (LER) submitted on November 18, 2014, did not discuss a separate, partially opened secondary containment door that was discovered during the same time frame, which could have prevented the fulfillment of the safety function of secondary containment, and therefore was required to be discussed in the original LER. Exelon entered this issue into their corrective action program as IR 2440641. Planned corrective actions include revising the original LER to add a discussion of the partially opened secondary containment door.

The inspectors determined that not providing a complete report in accordance with 10 CFR 50.9(a) is a performance deficiency that was reasonably within Exelon's ability to foresee and correct and should have been prevented. Because the issue had the potential to affect the NRC's ability to perform its regulatory oversight function, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. In accordance with Section 2.2.2.d of the NRC Enforcement Policy, the inspectors determined that the performance deficiency identified with the reporting aspect of the event is a Severity Level IV violation because it is of more than minor concern with relatively inappreciable potential safety significance and is related to findings that were determined to be more than minor issues. In accordance with IMC 0612, Appendix B, this issue was not assigned a cross-cutting aspect.

Inspection Report# : 2015001 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : December 15, 2015

Oyster Creek
4Q/2015 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Problem Identification and Resolution Leading to Degradation of EPR Causing a Reactor Scram
A self-revealing finding was identified because Exelon did not adequately identify and correct conditions, per LS-AA-120, "Issue Identification and Screening Process," that led to degradation of the electric pressure regulator (EPR) wiring, which resulted in an uncontrolled rise in reactor pressure and subsequent reactor scram on average power range monitor (APRM) Hi-Hi Flux. Specifically, Exelon failed to generate issue reports to document degraded EPR wiring that was previously identified, and therefore did not take corrective action prior to a reactor scram. Planned corrective actions include reinforcing with station personnel that an issue report is required when issues are identified.

This finding is more than minor because it is associated with the equipment performance attribute of the Initiating Events cornerstone and adversely impacted its objective to limit the likelihood of events that upset plant stability and challenge critical safety functions. In accordance with IMC 0609, Attachment 4 and Exhibit 1 of Appendix A, the inspectors determined that this finding is of very low safety significance (Green) because the finding did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors determined there is no cross-cutting aspect associated with this finding since it is not representative of current Exelon performance. Specifically, in accordance IMC 0612, the causal factors associated with this finding occurred outside the nominal three-year period of consideration and considered not representative of present performance. (Section 4OA3)

Inspection Report# : 2015004 *(pdf)*

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Reactor Water Cleanup Procedure Not Followed Resulting in a Level Transient
A self-revealing NCV of Technical Specification 6.8.1(a), "Procedures and Programs," was identified because Exelon did not follow procedure 303, "Reactor Cleanup Demineralizer System," during the system restoration on March 26, 2015. Specifically, during startup from a forced outage (1F36), Exelon did not follow procedure 303, which required correct valve lineups for system restoration of reactor water cleanup (RWCU) after system isolation. This resulted in decreasing reactor water level, which was automatically terminated by a second RWCU isolation. Exelon entered this issue into the corrective action program. Planned corrective actions include enhancing operator training in system knowledge and procedure compliance and revising startup procedures.

This finding is determined to be more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, Exelon did not properly lineup the RWCU system after isolation, which resulted in a water level transient and challenging the critical safety function of inventory control. This finding is determined to be of very low safety significance (Green),

because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition.

This finding has a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, because Exelon did not recognize and plan for the possibility of mistakes, or implement appropriate error reduction tools. Specifically, the operators did not stop and fully communicate plant condition after the initial RWCU isolation. Consequently, operators opened the RWCU system inlet valve due to the increasing water level without following procedure guidance. [H.11]
Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Reset of the Automatic Voltage Regulator Controller Led to an Automatic Reactor Scram
A self-revealing finding was identified because Exelon did not properly screen work in accordance with MA-AA-716-010, "Maintenance Planning." Specifically, on September 12, 2014, Exelon did not screen the automatic voltage regulator's (AVR) human machine interface (HMI) post-maintenance test per the maintenance planning procedure. As a result, on October 12, 2014, Exelon personnel performing the post-maintenance test did not have a work order, which would have included plant configurations and limitations associated with the test. This led to an automatic reactor scram. Exelon entered this issue into the corrective action program. Planned corrective actions include reinforcing with work planners that a work order is required for similar work activities.

This finding was determined to be more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during plant operation. Specifically, resetting the three AVR controllers caused an automatic plant scram. This finding is determined to be of very low safety significance (Green), because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. This finding has a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, because Exelon did not recognize and plan for the possibility of mistakes, or implement appropriate error reduction tools. Specifically, on October 12, 2014, Exelon personnel did not stop when faced with the uncertain situation of the HMI screen that did not respond as expected. [H.11]

Inspection Report# : 2015002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Preconditioning of the Standby Liquid Control Relief Valves
The inspectors identified an NCV of 10 Code of Federal Regulations (CFR) 50, Appendix B, Criterion XI, "Test Control," because Exelon conducted unacceptable preconditioning of the standby liquid control (SLC) relief valves prior to American Society of Mechanical Engineers (ASME) code testing. Specifically, Exelon performed a SLC system functional test prior to performing the SLC relief valve as-found testing. Exelon's immediate corrective actions included completing the as-found test prior to the functional test. Exelon entered this issue into their corrective action program (CAP) as issue report 2566036 to track the resolution of the issue.

The performance deficiency is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affects the cornerstone objective of ensuring availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Additionally, if left uncorrected, the performance deficiency could have the potential to lead to a more significant safety concern. Specifically, completion of the functional test prior to the replacement of the SLC relief valves masks the actual as-found condition by solidifying the valve internals. As a result, the as-found condition of the SLC relief valves have not been conducted and in the worst case scenario, could open below the design setpoint, which would divert flow back to the liquid poison tank instead of into the vessel to shut down the reactor during an anticipated transient without scram (ATWS) condition. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and determined the finding was of very low safety significance (Green) because the structure, system or component (SSC) maintained its operability. The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation because Exelon did not thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, Exelon did not evaluate the effect of performing the SLC system functional test prior to conducting the ASME code as-found test on the SLC relief valves. [P.2] (Section 1R15)

Inspection Report# : 2015004 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Non-Conservative Temperature Input in the Electromatic Relief Valve Voltage Drop Calculation
The inspectors identified an NCV of 10 Code of Federal Regulations (CFR) 50, Appendix B, Criterion III, "Design Control," in that Exelon's measures for verifying the adequacy of design of the electromatic relief valve (EMRV) voltage drop calculation were inadequate. Specifically, non-conservative temperature inputs were used for the safety related EMRV direct current voltage drop calculation, which reduced the margin of available voltage to the EMRV solenoids. Exelon entered this issue into the corrective action program for resolution as issue report 2522756, and corrective actions included revising the calculation to include the correct temperature values and conduct an extent of condition of other voltage drop calculations that could have similar temperature values.

The performance deficiency is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, lower voltage to the EMRV solenoid at higher temperatures could affect the reliability and capability of the EMRV to perform its design function. In addition, the performance deficiency is determined to be more than minor because it is similar to example 3.j of NRC IMC 0612, Appendix E, "Example of Minor Issues," in that as a result of the calculation errors and the magnitude of the decrease of margin, there was a reasonable doubt on the operability of the component. The inspectors evaluated the finding using 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix A, Exhibit 2, "Mitigating System Screening Questions." The inspectors determined that this finding is a deficiency that affected the design or qualification of a mitigating structure, system or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding is not assigned a cross-cutting aspect because it is not reflective of current performance. Specifically, the last time Exelon had an opportunity to evaluate this issue was in 2010 when Exelon identified that the EMRV solenoid voltage had low margin.

Inspection Report# : 2015003 *(pdf)*

Significance: G Jun 30, 2015

Identified By: NRC
Item Type: FIN Finding
Inadequate Assessment of Degraded 4k Emergency Switchgear Roll-Up Door Floor Gasket
The inspectors identified a finding associated with Exelon procedure, OP-AA-108-115, "Operability Determinations," because Exelon did not adequately assess a degraded floor gasket for the 'D' emergency 4 kilovolt (kV) switchgear roll-up door. Specifically, Exelon did not adequately assess the flood and fire functionality of the degraded gasket, which is credited to provide protection to safety-related 'D' emergency 4kV switchgear during a postulated internal flood event and to contain the carbon dioxide (CO_2) gaseous suppression system during a postulated fire within the 'D' switchgear room. Exelon entered this issue into the corrective action program.

Planned corrective actions include reinforcing the operability determination procedure and enhancing operator training in fire and flood functionality of gaskets. Additional corrective actions included repairing the gasket and performing a detailed analysis of the ability of degraded gasket to meet its flooding and fire function.

This finding is more than minor because it is associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the degraded floor gasket could have resulted in increased water level in the 'D' emergency 4kV switchgear room during a postulated internal flood due to a fire water pipe rupture, therefore affecting the reliability of the 'D' emergency 4k switchgear to perform its safety function. In addition, the degraded floor gasket could have resulted in CO_2 leakage out of the 'D' emergency 4k switchgear room during a postulated fire in that room, therefore affecting the reliability of the 'D' emergency 4k switchgear gaseous suppression system to perform its safety function. The inspectors determined that this finding is of very low safety significance (Green) because it is a deficiency that affected the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, because Exelon did not thoroughly evaluate issues to ensure that resolutions address the causes and extent of conditions commensurate with their safety significance. Specifically, Exelon staff did not thoroughly evaluate the issue associated with the degraded floor gasket for fire and flood functionality.

The finding has a cross-cutting aspect in the area of human performance associated with resources attribute because leaders failed to ensure that personnel, equipment, procedures, and other resources were available and adequate to support nuclear safety to maintain the ECST inventory during the mission time. [H.1]
Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Failure Rates Exceed Twenty Percent for Annual Requalification Exam
A self-revealing finding was identified associated with inadequate licensed operator performance during licensed operator requalification exams in accordance with TQ-AA-150, "Operator Training Program." Specifically, two of seven crews failed the simulator scenario portion of the requalification examinations. As an immediate corrective action, the crews that failed were restricted from licensed duties. Exelon entered this issue into the corrective action program, and facility training staff remediated the crews (the crews were retrained and successfully retested), and those crews were returned to licensed duties.

This finding is more than minor because it is associated with the human performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, two of seven crews failed to demonstrate a satisfactory understanding of the knowledge and abilities required to safely operate the facility under

normal, abnormal, and emergency conditions.

The inspectors determined the finding to be of very low safety significance (Green) because it is related to requalification exam results, did not result in a failure rate of greater than forty percent, and the two crews were remediated (i.e., the crews were retrained and successfully retested) prior to returning to shift. This finding has a cross-cutting aspect in the area of Human Performance, Training, because Exelon staff did not provide adequate operator requalification training to maintain a knowledgeable, technically competent workforce. [H.9]
Inspection Report# : 2015002 *(pdf)*

Significance: G Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Post Maintenance Testing for Emergency Service Water Pump Breaker
The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" for Exelon's failure to develop an adequate post maintenance test to determine operability of the 'A' emergency service water pump breaker. Specifically, the corrective maintenance work performed on April 16, 2013, did not correct the cause of the failure and Exelon did not perform an adequate post maintenance test to verify conditions had been corrected. As a result, the emergency service water system was returned to service even though it did not meet all the requirements for operability. The issue was not identified and resolved until a subsequent surveillance test on April 17, 2013, which identified a failed breaker. Exelon entered this issue into their corrective action program (IR 2471069). Planned corrective actions include revising work order activities to specify the correct post maintenance test.

This performance deficiency is more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone, and adversely affected its objective to ensure the availability and reliability of the systems that respond to initiating events. Specifically, the inadequate post maintenance test for 'A' emergency service water pump breaker on April 16, 2013, led to the 'A' emergency service water pump failing to perform its function during the subsequent surveillance testing on April 17, 2013. The inspectors assessed this finding in accordance with the IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors concluded that this finding did not represent an actual loss of function of the emergency service water system for greater than its technical specification allowed outage time (15 days). Therefore, the inspectors determined that this finding is of very low safety significance (Green). The inspectors determined that this finding had a cross-cutting aspect in the area of Human Performance, Work Management, in that Exelon's work planning and executing of work activities did not include documented instructions for performing an adequate post maintenance test. [H.5]

Inspection Report# : 2015001 *(pdf)*

Barrier Integrity

Significance: N/A Apr 24, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Use of an Analytical Method to Determine the Core Operating Limits Without Prior NRC Approval
Severity Level lV. The NRC identified a Severity Level lV non-cited violation (NCV) of Technical Specification (TS) 6.9.1.f.2 in that Exelon did not obtain NRC approval prior to using a specific analytical method to determine the core operating limits. Specifically, Exelon used an analytical method (TRACG04P) to determine the core operating limits (the average power range monitor protection settings which were identified in the Core Operating Limits Report

(COLR)); however, that particular analytical method was not previously reviewed and approved by the NRC prior to Exelon's use. Exelon submitted a corrective action issue report (IR) to evaluate the condition (IR2482042).

The team determined that Exelon did not comply with TS 6.9.1.f.2 requirements in that Exelon used an analytical method to determine the core operating limits without prior NRC approval. The team determined that this was a performance deficiency that was within Exelon's ability to foresee and correct. Because the issue had the potential to affect the NRC's ability to perform its regulatory function, the team evaluated this performance deficiency in accordance with the traditional enforcement process. Using the Enforcement Manual, the team characterized the violation as Severity Level IV because the underlying analytical method required NRC approval prior to use. Because this violation involves the traditional enforcement process and does not have an underlying technical violation that would be considered more-than-minor within the Reactor Oversight Process (ROP), the team did not assign a cross-cutting aspect to this violation in accordance with IMC 0612, "Power Reactor Inspection Reports," Section 07.03.c.
Inspection Report# : 2015008 *(pdf)*

Significance: G Apr 24, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Untimely Corrective Actions to Restore Design Conformance of Two SDV Vent & Drain Valves Pressure Regulator Valves
Green. The NRC identified an NCV of Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly correct a condition adverse to quality. Specifically, corrective actions to restore design conformance of scram discharge volume (SDV) vent and drain valve pressure regulator valves V-6-961 and V-6-962 were not taken at the first opportunity of sufficient duration which was refueling outage 25 (1R25). Additionally, justification of the basis for deferral of corrective actions beyond the restart from 1R25 on October 2014, was not documented, reviewed, or approved by site management and/or oversight organizations as required by station procedure OP-AA-108-115, Section 4.5.5. Consequently, two non-conforming pressure regulator valves which perform a safety-related function remained installed following plant startup from 1R25, without appropriate evaluation and approval. Immediate corrective action included licensee determination that V-6-961 and 962 and the associated SDV vent and drain valves (V-15-119 and 121) remained operable, but non-conforming. Exelon entered the issue into their corrective action program as IR 2482851.

The finding was more than minor because it was associated with the design control and barrier performance attributes of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of ensuring the operational capability of the containment barrier to protect the public from radionuclide releases caused by accidents or events. Additionally, the finding was similar to example 5.c in Appendix E of Inspection Manual Chapter (IMC) 0612, because the control rod drive system was returned to service following 1R25 with two non-conforming (non-safety-related) pressure regulator valves installed in a safety-related application. The team determined the finding was of very low safety significance because it did not affect the reactor coolant system (RCS) boundary; did not affect the radiological barrier function of the control room, auxiliary building, or spent fuel pool systems or boundaries; and did not represent an actual open pathway in containment or involve a reduction in the function of hydrogen igniters. The team assigned a cross-cutting aspect in the area of Human Performance, Consistent Process because the organization did not use a consistent systematic approach to evaluate component operability after Exelon upgraded the classification of three pressure regulator valves from a non-safety to a safety-related status. [H.13]
Inspection Report# : 2015008 *(pdf)*

Significance: G Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Post Maintenance Test Results Were Not Evaluated to Assure that Technical Specifications Requirements

Were Satisfied.
The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," when Exelon did not document and adequately evaluate test results to assure that test requirements had been satisfied. Specifically, Exelon did not perform the proper post maintenance test procedure to assure that the requirements of Technical Specification 4.5.G.3 were satisfied following installation of a temporary modification to secondary containment. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 2440643. Corrective actions include revising the process to perform the correct post maintenance test to ensure Technical Specification 4.5.G.3 is met.

This finding is more than minor because it is associated with the configuration control (Standby Gas Trains) attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding using IMC 0609.04, "Initial Characterization of Findings," issued June 19, 2012, and IMC 0609, Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process: Phase 1 Initial Screening and Characterization of Findings," issued May 9, 2014. Because the finding degraded the ability to close or isolate secondary containment, the inspectors were required to further assess the finding using IMC 0609, Appendix H, "Containment Integrity Significance Determination Process," issued May 6, 2004. The inspectors determined that this finding is of very low safety significance (Green) because the decay heat values were low, given that the unit had been shut down for approximately three days, and reactor water level was greater than that required for movement of irradiated fuel assemblies within the reactor pressure vessel. This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon personnel did not perform the post maintenance test specified by the work order. [H.8]
Inspection Report# : 2015001 *(pdf)*

Significance: N/A Mar 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Incomplete 50.72 and 50.73 Reports Associated with Secondary Containment Integrity
The inspectors identified a Severity Level IV NCV of 10 CFR 50.9(a) in that Exelon did not provide complete information in reports submitted per 10 CFR 50.72 and 10 CFR 50.73. Specifically, a licensee event report (LER) submitted on November 18, 2014, did not discuss a separate, partially opened secondary containment door that was discovered during the same time frame, which could have prevented the fulfillment of the safety function of secondary containment, and therefore was required to be discussed in the original LER. Exelon entered this issue into their corrective action program as IR 2440641. Planned corrective actions include revising the original LER to add a discussion of the partially opened secondary containment door.

The inspectors determined that not providing a complete report in accordance with 10 CFR 50.9(a) is a performance deficiency that was reasonably within Exelon's ability to foresee and correct and should have been prevented. Because the issue had the potential to affect the NRC's ability to perform its regulatory oversight function, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. In accordance with Section 2.2.2.d of the NRC Enforcement Policy, the inspectors determined that the performance deficiency identified with the reporting aspect of the event is a Severity Level IV violation because it is of more than minor concern with relatively inappreciable potential safety significance and is related to findings that were determined to be more than minor issues. In accordance with IMC 0612, Appendix B, this issue was not assigned a cross-cutting aspect.

Inspection Report# : 2015001 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : March 01, 2016

Oyster Creek
1Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Problem Identification and Resolution Leading to Degradation of EPR Causing a Reactor Scram
A self-revealing finding was identified because Exelon did not adequately identify and correct conditions, per LS-AA-120, "Issue Identification and Screening Process," that led to degradation of the electric pressure regulator (EPR) wiring, which resulted in an uncontrolled rise in reactor pressure and subsequent reactor scram on average power range monitor (APRM) Hi-Hi Flux. Specifically, Exelon failed to generate issue reports to document degraded EPR wiring that was previously identified, and therefore did not take corrective action prior to a reactor scram. Planned corrective actions include reinforcing with station personnel that an issue report is required when issues are identified.

This finding is more than minor because it is associated with the equipment performance attribute of the Initiating Events cornerstone and adversely impacted its objective to limit the likelihood of events that upset plant stability and challenge critical safety functions. In accordance with IMC 0609, Attachment 4 and Exhibit 1 of Appendix A, the inspectors determined that this finding is of very low safety significance (Green) because the finding did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors determined there is no cross-cutting aspect associated with this finding since it is not representative of current Exelon performance. Specifically, in accordance IMC 0612, the causal factors associated with this finding occurred outside the nominal three-year period of consideration and considered not representative of present performance. (Section 4OA3)

Inspection Report# : 2015004 *(pdf)*

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Reactor Water Cleanup Procedure Not Followed Resulting in a Level Transient
A self-revealing NCV of Technical Specification 6.8.1(a), "Procedures and Programs," was identified because Exelon did not follow procedure 303, "Reactor Cleanup Demineralizer System," during the system restoration on March 26, 2015. Specifically, during startup from a forced outage (1F36), Exelon did not follow procedure 303, which required correct valve lineups for system restoration of reactor water cleanup (RWCU) after system isolation. This resulted in decreasing reactor water level, which was automatically terminated by a second RWCU isolation. Exelon entered this issue into the corrective action program. Planned corrective actions include enhancing operator training in system knowledge and procedure compliance and revising startup procedures.

This finding is determined to be more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, Exelon did not properly lineup the RWCU system after isolation, which resulted in a water level transient and challenging the critical safety function of inventory control. This finding is determined to be of very low safety significance (Green),

because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition.

This finding has a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, because Exelon did not recognize and plan for the possibility of mistakes, or implement appropriate error reduction tools. Specifically, the operators did not stop and fully communicate plant condition after the initial RWCU isolation. Consequently, operators opened the RWCU system inlet valve due to the increasing water level without following procedure guidance. [H.11]
Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Reset of the Automatic Voltage Regulator Controller Led to an Automatic Reactor Scram
A self-revealing finding was identified because Exelon did not properly screen work in accordance with MA-AA-716-010, "Maintenance Planning." Specifically, on September 12, 2014, Exelon did not screen the automatic voltage regulator's (AVR) human machine interface (HMI) post-maintenance test per the maintenance planning procedure. As a result, on October 12, 2014, Exelon personnel performing the post-maintenance test did not have a work order, which would have included plant configurations and limitations associated with the test. This led to an automatic reactor scram. Exelon entered this issue into the corrective action program. Planned corrective actions include reinforcing with work planners that a work order is required for similar work activities.

This finding was determined to be more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during plant operation. Specifically, resetting the three AVR controllers caused an automatic plant scram. This finding is determined to be of very low safety significance (Green), because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. This finding has a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, because Exelon did not recognize and plan for the possibility of mistakes, or implement appropriate error reduction tools. Specifically, on October 12, 2014, Exelon personnel did not stop when faced with the uncertain situation of the HMI screen that did not respond as expected. [H.11]

Inspection Report# : 2015002 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify a Slower than Normal Scram Time of a Control Rod Drive
The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify and correct a condition adverse to quality. Specifically, Exelon did not identify the scram time test result for control rod drive 18-47 was beyond the analyzed scram time, which resulted in a degraded control rod drive. Exelon entered this issue into their corrective action program and immediate corrective actions included fully inserting the control rod drive and developing a casual analysis to determine the degraded condition.

The performance deficiency is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of control rod drive 18-47 to perform its safety function due to a slower than normal scram time. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Identification, because Exelon did not identify issues completely, accurately, and in a timely manner in accordance with the program. Specifically, Exelon did not identify that the actual scram time of control rod drive 18-47 was beyond the analyzed scram time resulting in a degraded control rod drive. [P.1] (Section 1R15

Inspection Report# : 2016001 *(pdf)*

Significance: TBD Mar 31, 2016
Identified By: NRC
Item Type: AV Apparent Violation
Inadequate Instructions for the Flexible Coupling Hose Preventative Maintenance Resulting in an Inoperable Emergency Diesel Generator
(Initial Entry)
The inspectors identified a preliminary White finding and associated apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Exelon did not appropriately prescribe instructions or procedures for maintenance on the emergency diesel generator (EDG) No. 1 cooling water system to ensure the EDG cooling flexible coupling hose was maintained to support the EDG safety function. Specifically, Exelon did not have appropriate work instructions to replace the EDG cooling flexible coupling hoses every 12 years as specified by Exelon's procedure and vendor information. As a result, the flexible coupling hose was in service for approximately 22 years and subjected to thermal degradation and aging that eventually led to the EDG No. 1 failure on January 4, 2016. As a consequence of this inappropriate work instruction issue, Exelon also violated Technical Specification 3.7.C because EDG No. 1 was determined to be inoperable for greater than the technical specification allowed outage time of seven days. Exelon's immediate corrective actions included entering the issue into their corrective action program (issue reports 2607247 and 2610027), replacing of the EDG No. 1 and No. 2 flexible coupling hoses, and initiating a failure analysis to determine the causes of the failed flexible coupling hose.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the ruptured flexible coupling hose caused the inability of the EDG No.1 to perform its safety function. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 2 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," issued June 19, 2012, the inspectors screened the finding for safety significance and determined that a detailed risk evaluation was required because EDG No. 1 was inoperable for greater than the technical specification allowed outage time of 7 days. The detailed risk evaluation concluded that the increase in core damage frequency was 5.1E-6, or White (low to moderate safety significance). This finding does not have an associated cross-cutting. aspect because the performance deficiency occurred in 2005 and is not reflective of present performance.
(IR 05000219/2016001 and 05000219/2016009 dated March XX, 2015)
Inspection Report# : 2016001 *(pdf)*
Inspection Report# : 2016009 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation

Preconditioning of the Standby Liquid Control Relief Valves
The inspectors identified an NCV of 10 Code of Federal Regulations (CFR) 50, Appendix B, Criterion XI, "Test Control," because Exelon conducted unacceptable preconditioning of the standby liquid control (SLC) relief valves prior to American Society of Mechanical Engineers (ASME) code testing. Specifically, Exelon performed a SLC system functional test prior to performing the SLC relief valve as-found testing. Exelon's immediate corrective actions included completing the as-found test prior to the functional test. Exelon entered this issue into their corrective action program (CAP) as issue report 2566036 to track the resolution of the issue.

The performance deficiency is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affects the cornerstone objective of ensuring availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Additionally, if left uncorrected, the performance deficiency could have the potential to lead to a more significant safety concern. Specifically, completion of the functional test prior to the replacement of the SLC relief valves masks the actual as-found condition by solidifying the valve internals. As a result, the as-found condition of the SLC relief valves have not been conducted and in the worst case scenario, could open below the design setpoint, which would divert flow back to the liquid poison tank instead of into the vessel to shut down the reactor during an anticipated transient without scram (ATWS) condition. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and determined the finding was of very low safety significance (Green) because the structure, system or component (SSC) maintained its operability. The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation because Exelon did not thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, Exelon did not evaluate the effect of performing the SLC system functional test prior to conducting the ASME code as-found test on the SLC relief valves. [P.2] (Section 1R15)

Inspection Report# : 2015004 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Non-Conservative Temperature Input in the Electromatic Relief Valve Voltage Drop Calculation
The inspectors identified an NCV of 10 Code of Federal Regulations (CFR) 50, Appendix B, Criterion III, "Design Control," in that Exelon's measures for verifying the adequacy of design of the electromatic relief valve (EMRV) voltage drop calculation were inadequate. Specifically, non-conservative temperature inputs were used for the safety related EMRV direct current voltage drop calculation, which reduced the margin of available voltage to the EMRV solenoids. Exelon entered this issue into the corrective action program for resolution as issue report 2522756, and corrective actions included revising the calculation to include the correct temperature values and conduct an extent of condition of other voltage drop calculations that could have similar temperature values.

The performance deficiency is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, lower voltage to the EMRV solenoid at higher temperatures could affect the reliability and capability of the EMRV to perform its design function. In addition, the performance deficiency is determined to be more than minor because it is similar to example 3.j of NRC IMC 0612, Appendix E, "Example of Minor Issues," in that as a result of the calculation errors and the magnitude of the decrease of margin, there was a reasonable doubt on the operability of the component. The inspectors evaluated the finding using 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix A, Exhibit 2, "Mitigating System Screening Questions." The inspectors determined that this finding is a deficiency that affected the design or qualification of a mitigating structure, system or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding is not assigned a cross-cutting aspect because it is not reflective of current performance.

Specifically, the last time Exelon had an opportunity to evaluate this issue was in 2010 when Exelon identified that the EMRV solenoid voltage had low margin.

Inspection Report# : 2015003 *(pdf)*

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: FIN Finding
Inadequate Assessment of Degraded 4k Emergency Switchgear Roll-Up Door Floor Gasket
The inspectors identified a finding associated with Exelon procedure, OP-AA-108-115, "Operability Determinations," because Exelon did not adequately assess a degraded floor gasket for the 'D' emergency 4 kilovolt (kV) switchgear roll-up door. Specifically, Exelon did not adequately assess the flood and fire functionality of the degraded gasket, which is credited to provide protection to safety-related 'D' emergency 4kV switchgear during a postulated internal flood event and to contain the carbon dioxide (CO2) gaseous suppression system during a postulated fire within the 'D' switchgear room. Exelon entered this issue into the corrective action program.

Planned corrective actions include reinforcing the operability determination procedure and enhancing operator training in fire and flood functionality of gaskets. Additional corrective actions included repairing the gasket and performing a detailed analysis of the ability of degraded gasket to meet its flooding and fire function.

This finding is more than minor because it is associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the degraded floor gasket could have resulted in increased water level in the 'D' emergency 4kV switchgear room during a postulated internal flood due to a fire water pipe rupture, therefore affecting the reliability of the 'D' emergency 4k switchgear to perform its safety function. In addition, the degraded floor gasket could have resulted in CO2 leakage out of the 'D' emergency 4k switchgear room during a postulated fire in that room, therefore affecting the reliability of the 'D' emergency 4k switchgear gaseous suppression system to perform its safety function. The inspectors determined that this finding is of very low safety significance (Green) because it is a deficiency that affected the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, because Exelon did not thoroughly evaluate issues to ensure that resolutions address the causes and extent of conditions commensurate with their safety significance. Specifically, Exelon staff did not thoroughly evaluate the issue associated with the degraded floor gasket for fire and flood functionality.

The finding has a cross-cutting aspect in the area of human performance associated with resources attribute because leaders failed to ensure that personnel, equipment, procedures, and other resources were available and adequate to support nuclear safety to maintain the ECST inventory during the mission time. [H.1]
Inspection Report# : 2015002 *(pdf)*

Significance: G Jun 30, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Failure Rates Exceed Twenty Percent for Annual Requalification Exam
A self-revealing finding was identified associated with inadequate licensed operator performance during licensed operator requalification exams in accordance with TQ-AA-150, "Operator Training Program." Specifically, two of seven crews failed the simulator scenario portion of the requalification examinations. As an immediate corrective action, the crews that failed were restricted from licensed duties. Exelon entered this issue into the corrective action

program, and facility training staff remediated the crews (the crews were retrained and successfully retested), and those crews were returned to licensed duties.

This finding is more than minor because it is associated with the human performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, two of seven crews failed to demonstrate a satisfactory understanding of the knowledge and abilities required to safely operate the facility under normal, abnormal, and emergency conditions.

The inspectors determined the finding to be of very low safety significance (Green) because it is related to requalification exam results, did not result in a failure rate of greater than forty percent, and the two crews were remediated (i.e., the crews were retrained and successfully retested) prior to returning to shift. This finding has a cross-cutting aspect in the area of Human Performance, Training, because Exelon staff did not provide adequate operator requalification training to maintain a knowledgeable, technically competent workforce. [H.9]
Inspection Report# : 2015002 *(pdf)*

Barrier Integrity

Significance: N/A Apr 24, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Use of an Analytical Method to Determine the Core Operating Limits Without Prior NRC Approval
Severity Level lV. The NRC identified a Severity Level lV non-cited violation (NCV) of Technical Specification (TS) 6.9.1.f.2 in that Exelon did not obtain NRC approval prior to using a specific analytical method to determine the core operating limits. Specifically, Exelon used an analytical method (TRACG04P) to determine the core operating limits (the average power range monitor protection settings which were identified in the Core Operating Limits Report (COLR)); however, that particular analytical method was not previously reviewed and approved by the NRC prior to Exelon's use. Exelon submitted a corrective action issue report (IR) to evaluate the condition (IR2482042).

The team determined that Exelon did not comply with TS 6.9.1.f.2 requirements in that Exelon used an analytical method to determine the core operating limits without prior NRC approval. The team determined that this was a performance deficiency that was within Exelon's ability to foresee and correct. Because the issue had the potential to affect the NRC's ability to perform its regulatory function, the team evaluated this performance deficiency in accordance with the traditional enforcement process. Using the Enforcement Manual, the team characterized the violation as Severity Level IV because the underlying analytical method required NRC approval prior to use. Because this violation involves the traditional enforcement process and does not have an underlying technical violation that would be considered more-than-minor within the Reactor Oversight Process (ROP), the team did not assign a cross-cutting aspect to this violation in accordance with IMC 0612, "Power Reactor Inspection Reports," Section 07.03.c.
Inspection Report# : 2015008 *(pdf)*

Significance: G Apr 24, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Untimely Corrective Actions to Restore Design Conformance of Two SDV Vent & Drain Valves Pressure Regulator Valves
Green. The NRC identified an NCV of Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly correct a condition adverse to quality. Specifically,

corrective actions to restore design conformance of scram discharge volume (SDV) vent and drain valve pressure regulator valves V-6-961 and V-6-962 were not taken at the first opportunity of sufficient duration which was refueling outage 25 (1R25). Additionally, justification of the basis for deferral of corrective actions beyond the restart from 1R25 on October 2014, was not documented, reviewed, or approved by site management and/or oversight organizations as required by station procedure OP-AA-108-115, Section 4.5.5. Consequently, two non-conforming pressure regulator valves which perform a safety-related function remained installed following plant startup from 1R25, without appropriate evaluation and approval. Immediate corrective action included licensee determination that V-6-961 and 962 and the associated SDV vent and drain valves (V-15-119 and 121) remained operable, but non-conforming. Exelon entered the issue into their corrective action program as IR 2482851.

The finding was more than minor because it was associated with the design control and barrier performance attributes of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of ensuring the operational capability of the containment barrier to protect the public from radionuclide releases caused by accidents or events. Additionally, the finding was similar to example 5.c in Appendix E of Inspection Manual Chapter (IMC) 0612, because the control rod drive system was returned to service following 1R25 with two non-conforming (non-safety-related) pressure regulator valves installed in a safety-related application. The team determined the finding was of very low safety significance because it did not affect the reactor coolant system (RCS) boundary; did not affect the radiological barrier function of the control room, auxiliary building, or spent fuel pool systems or boundaries; and did not represent an actual open pathway in containment or involve a reduction in the function of hydrogen igniters. The team assigned a cross-cutting aspect in the area of Human Performance, Consistent Process because the organization did not use a consistent systematic approach to evaluate component operability after Exelon upgraded the classification of three pressure regulator valves from a non-safety to a safety-related status. [H.13]
Inspection Report# : 2015008 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 31, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Use Respiratory Protection as Required in RWP/ALARA Plan for Drywell Head Reassembly
A self-revealing Green NCV of Technical Specification 6.8.1, “Procedures and Programs” was identified for Exelon’s failure to use respiratory protection, as required in the radiation work permit (RWP)/as low as reasonably achievable (ALARA) plan 14-406 for drywell head reassembly work on October 2, 2014. The radiation protection (RP) supervisor overseeing this work removed the respiratory protection requirement for this work contrary to the RWP/ALARA requirement and without engineering approval. As a result, two workers received an unplanned intake of radioactive material that resulted in unintended internal dose. Exelon stopped work on this task and subsequently enforced the respiratory protection requirements to complete the remaining work and entered this event into their corrective action program as issue report (IR) 2390111.

This finding is more than minor because it is associated with the Occupational Radiation Safety Cornerstone to ensure adequate protection of the worker from radiation exposure. Specifically, without the use of respiratory protection two workers received unintended internal dose. The inspectors evaluated the finding using inspection manual chapter 0609, Appendix C, “Occupational Radiation Safety Significance Determination Process.” The inspectors determined

that this finding is of very low safety significance (Green), because it did not result in an overexposure, there was no substantial potential for an overexposure, and the ability to assess dose was not compromised. This finding has a cross-cutting aspect in Human Performance, Procedural Adherence, because Exelon did not follow procedures and work instructions. Specifically, RP supervision instructed the workers that respiratory protection was not required contrary to the applicable RWP/ALARA plan. [H.8] (Section 2RS1)

Inspection Report# : 2016001 *(pdf)*

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : July 11, 2016

Oyster Creek
2Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Inadequate Maintenance Procedure associated with Reactor Recirculation Pump Seal
A self-revealing NCV of Technical Specification 6.8.1, "Procedures and Programs," was identified because Exelon did not adequately establish and maintain the reactor recirculation pump (RRP) reassembly maintenance procedures as required by NRC Regulatory Guide 1.33, Appendix A, Section 9, "Procedures for Performing Maintenance." Specifically, the RRP reassembly procedure, 2400-SMM-3226.03, "Reactor Recirculation Pump Mechanical Seal Rebuild Using CAN-2A Parts," did not provide critical dimensional checks for the locking plate and seal adjusting cap. Exelon entered this issue into their corrective action program as issue report 2663436. The corrective actions included revising RRP maintenance procedures to include critical dimensional information.

This finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown and power operation. Specifically, the incorrect reassembly of the 'D' RRP created a leakage path, which led to an unexpected increase in RCS unidentified leakage. As a result, the operators inserted a manual scram on April 30, 2016. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and IMC 0609, Appendix A, Exhibit 1, "Initiating Event Screening Questions." The inspectors determined that this finding is a transient initiator that did not contribute to both the likelihood of a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition, and therefore was of very low safety significance (Green). The inspectors determined that there was no cross-cutting aspect associated with this finding since it was not representative of current Exelon performance. Specifically, in accordance with IMC 0612, the causal factors associated with this finding occurred outside the nominal three-year period of consideration and were not considered representative of present performance. (Section 4AO3)

Inspection Report# : 2016002 *(pdf)*

Significance: G Dec 31, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Problem Identification and Resolution Leading to Degradation of EPR Causing a Reactor Scram
A self-revealing finding was identified because Exelon did not adequately identify and correct conditions, per LS-AA-120, "Issue Identification and Screening Process," that led to degradation of the electric pressure regulator (EPR) wiring, which resulted in an uncontrolled rise in reactor pressure and subsequent reactor scram on average power range monitor (APRM) Hi-Hi Flux. Specifically, Exelon failed to generate issue reports to document degraded EPR wiring that was previously identified, and therefore did not take corrective action prior to a reactor scram. Planned corrective actions include reinforcing with station personnel that an issue report is required when issues are identified.

This finding is more than minor because it is associated with the equipment performance attribute of the Initiating

Events cornerstone and adversely impacted its objective to limit the likelihood of events that upset plant stability and challenge critical safety functions. In accordance with IMC 0609, Attachment 4 and Exhibit 1 of Appendix A, the inspectors determined that this finding is of very low safety significance (Green) because the finding did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors determined there is no cross-cutting aspect associated with this finding since it is not representative of current Exelon performance. Specifically, in accordance IMC 0612, the causal factors associated with this finding occurred outside the nominal three-year period of consideration and considered not representative of present performance. (Section 4OA3)

Inspection Report# : 2015004 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify a Slower than Normal Scram Time of a Control Rod Drive
The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify and correct a condition adverse to quality. Specifically, Exelon did not identify the scram time test result for control rod drive 18-47 was beyond the analyzed scram time, which resulted in a degraded control rod drive. Exelon entered this issue into their corrective action program and immediate corrective actions included fully inserting the control rod drive and developing a casual analysis to determine the degraded condition.

The performance deficiency is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of control rod drive 18-47 to perform its safety function due to a slower than normal scram time. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Identification, because Exelon did not identify issues completely, accurately, and in a timely manner in accordance with the program. Specifically, Exelon did not identify that the actual scram time of control rod drive 18-47 was beyond the analyzed scram time resulting in a degraded control rod drive. [P.1] (Section 1R15

Inspection Report# : 2016001 *(pdf)*

Significance: W Mar 31, 2016
Identified By: NRC
Item Type: VIO Violation
Inadequate Instructions for the Flexible Coupling Hose Preventative Maintenance Resulting in an Inoperable Emergency Diesel Generator
(Initial Entry)
The inspectors identified a preliminary White finding and associated apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Exelon did not appropriately prescribe instructions or procedures for maintenance on the emergency diesel generator (EDG) No. 1 cooling water system to ensure the EDG cooling flexible coupling hose was maintained to support the EDG safety function. Specifically, Exelon did not have

appropriate work instructions to replace the EDG cooling flexible coupling hoses every 12 years as specified by Exelon's procedure and vendor information. As a result, the flexible coupling hose was in service for approximately 22 years and subjected to thermal degradation and aging that eventually led to the EDG No. 1 failure on January 4, 2016. As a consequence of this inappropriate work instruction issue, Exelon also violated Technical Specification 3.7.C because EDG No. 1 was determined to be inoperable for greater than the technical specification allowed outage time of seven days. Exelon's immediate corrective actions included entering the issue into their corrective action program (issue reports 2607247 and 2610027), replacing of the EDG No. 1 and No. 2 flexible coupling hoses, and initiating a failure analysis to determine the causes of the failed flexible coupling hose.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the ruptured flexible coupling hose caused the inability of the EDG No.1 to perform its safety function. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 2 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," issued June 19, 2012, the inspectors screened the finding for safety significance and determined that a detailed risk evaluation was required because EDG No. 1 was inoperable for greater than the technical specification allowed outage time of 7 days. The detailed risk evaluation concluded that the increase in core damage frequency was 5.1E-6, or White (low to moderate safety significance). This finding does not have an associated cross-cutting. aspect because the performance deficiency occurred in 2005 and is not reflective of present performance.
(IR 05000219/2016001 and 05000219/2016009 dated May 12, 2016)

(Final Entry)
The NRC staff performed this supplemental inspection in accordance with IP 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," to assess Exelon's evaluation of a performance deficiency and violation of White significance, associated with the Mitigating Systems cornerstone, which was identified in the first quarter 2016 integrated inspection report (Agencywide Documents Access and Management System (ADAMS) Accession Number ML16132A436). The finding was associated with inadequate instructions for the flexible coupling hose preventative maintenance template resulting in an inoperable emergency diesel generator (EDG). The final significance determination and follow- up assessment letter for this finding, which was issued on July 6, 2016, documented that Oyster Creek transitioned to the Regulatory Response Column of the ROP Action Matrix, retroactive to the first quarter of 2016. The NRC staff was informed on June 14, 2016, of your staff's readiness for this inspection.

Based on the results of the inspection, the inspectors concluded that Exelon had adequately performed a root cause analysis of the event, and corrective actions, both completed and planned, were reasonable to address the related issues. Based on the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," dated October 18, 2013, and the results of this inspection, the White finding will be closed by this report. However, Oyster Creek will remain in the Regulatory Response Column until four quarters have elapsed since the White finding was originally documented in the first quarter of 2016. (IR 05000219/2016011 dated August 10, 2016)

Inspection Report# : 2016001 *(pdf)*
Inspection Report# : 2016009 *(pdf)*
Inspection Report# : 2016011 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Preconditioning of the Standby Liquid Control Relief Valves

The inspectors identified an NCV of 10 Code of Federal Regulations (CFR) 50, Appendix B, Criterion XI, "Test Control," because Exelon conducted unacceptable preconditioning of the standby liquid control (SLC) relief valves prior to American Society of Mechanical Engineers (ASME) code testing. Specifically, Exelon performed a SLC system functional test prior to performing the SLC relief valve as-found testing. Exelon's immediate corrective actions included completing the as-found test prior to the functional test. Exelon entered this issue into their corrective action program (CAP) as issue report 2566036 to track the resolution of the issue.

The performance deficiency is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affects the cornerstone objective of ensuring availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Additionally, if left uncorrected, the performance deficiency could have the potential to lead to a more significant safety concern. Specifically, completion of the functional test prior to the replacement of the SLC relief valves masks the actual as-found condition by solidifying the valve internals. As a result, the as-found condition of the SLC relief valves have not been conducted and in the worst case scenario, could open below the design setpoint, which would divert flow back to the liquid poison tank instead of into the vessel to shut down the reactor during an anticipated transient without scram (ATWS) condition. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and determined the finding was of very low safety significance (Green) because the structure, system or component (SSC) maintained its operability. The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation because Exelon did not thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, Exelon did not evaluate the effect of performing the SLC system functional test prior to conducting the ASME code as-found test on the SLC relief valves. [P.2] (Section 1R15)

Inspection Report# : 2015004 *(pdf)*

Significance:  Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Non-Conservative Temperature Input in the Electromatic Relief Valve Voltage Drop Calculation
The inspectors identified an NCV of 10 Code of Federal Regulations (CFR) 50, Appendix B, Criterion III, "Design Control," in that Exelon's measures for verifying the adequacy of design of the electromatic relief valve (EMRV) voltage drop calculation were inadequate. Specifically, non-conservative temperature inputs were used for the safety related EMRV direct current voltage drop calculation, which reduced the margin of available voltage to the EMRV solenoids. Exelon entered this issue into the corrective action program for resolution as issue report 2522756, and corrective actions included revising the calculation to include the correct temperature values and conduct an extent of condition of other voltage drop calculations that could have similar temperature values.

The performance deficiency is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, lower voltage to the EMRV solenoid at higher temperatures could affect the reliability and capability of the EMRV to perform its design function. In addition, the performance deficiency is determined to be more than minor because it is similar to example 3.j of NRC IMC 0612, Appendix E, "Example of Minor Issues," in that as a result of the calculation errors and the magnitude of the decrease of margin, there was a reasonable doubt on the operability of the component. The inspectors evaluated the finding using 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix A, Exhibit 2, "Mitigating System Screening Questions." The inspectors determined that this finding is a deficiency that affected the design or qualification of a mitigating structure, system or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding is not assigned a cross-cutting aspect because it is not reflective of current performance. Specifically, the last time Exelon had an opportunity to evaluate this issue was in 2010 when Exelon identified that the

EMRV solenoid voltage had low margin.

Inspection Report# : 2015003 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 31, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Use Respiratory Protection as Required in RWP/ALARA Plan for Drywell Head Reassembly
A self-revealing Green NCV of Technical Specification 6.8.1, "Procedures and Programs" was identified for Exelon's failure to use respiratory protection, as required in the radiation work permit (RWP)/as low as reasonably achievable (ALARA) plan 14-406 for drywell head reassembly work on October 2, 2014. The radiation protection (RP) supervisor overseeing this work removed the respiratory protection requirement for this work contrary to the RWP/ALARA requirement and without engineering approval. As a result, two workers received an unplanned intake of radioactive material that resulted in unintended internal dose. Exelon stopped work on this task and subsequently enforced the respiratory protection requirements to complete the remaining work and entered this event into their corrective action program as issue report (IR) 2390111.

This finding is more than minor because it is associated with the Occupational Radiation Safety Cornerstone to ensure adequate protection of the worker from radiation exposure. Specifically, without the use of respiratory protection two workers received unintended internal dose. The inspectors evaluated the finding using inspection manual chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process." The inspectors determined that this finding is of very low safety significance (Green), because it did not result in an overexposure, there was no substantial potential for an overexposure, and the ability to assess dose was not compromised. This finding has a cross-cutting aspect in Human Performance, Procedural Adherence, because Exelon did not follow procedures and work instructions. Specifically, RP supervision instructed the workers that respiratory protection was not required contrary to the applicable RWP/ALARA plan. [H.8] (Section 2RS1)

Inspection Report# : 2016001 *(pdf)*

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : September 20, 2016

Oyster Creek
4Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Inadequate Maintenance Procedure associated with Reactor Recirculation Pump Seal
A self-revealing NCV of Technical Specification 6.8.1, "Procedures and Programs," was identified because Exelon did not adequately establish and maintain the reactor recirculation pump (RRP) reassembly maintenance procedures as required by NRC Regulatory Guide 1.33, Appendix A, Section 9, "Procedures for Performing Maintenance." Specifically, the RRP reassembly procedure, 2400-SMM-3226.03, "Reactor Recirculation Pump Mechanical Seal Rebuild Using CAN-2A Parts," did not provide critical dimensional checks for the locking plate and seal adjusting cap. Exelon entered this issue into their corrective action program as issue report 2663436. The corrective actions included revising RRP maintenance procedures to include critical dimensional information.

This finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown and power operation. Specifically, the incorrect reassembly of the 'D' RRP created a leakage path, which led to an unexpected increase in RCS unidentified leakage. As a result, the operators inserted a manual scram on April 30, 2016. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and IMC 0609, Appendix A, Exhibit 1, "Initiating Event Screening Questions." The inspectors determined that this finding is a transient initiator that did not contribute to both the likelihood of a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition, and therefore was of very low safety significance (Green). The inspectors determined that there was no cross-cutting aspect associated with this finding since it was not representative of current Exelon performance. Specifically, in accordance with IMC 0612, the causal factors associated with this finding occurred outside the nominal three-year period of consideration and were not considered representative of present performance. (Section 4AO3)

Inspection Report# : 2016002 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify a Slower than Normal Scram Time of a Control Rod Drive
The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify and correct a condition adverse to quality. Specifically, Exelon did not identify the scram time test result for control rod drive 18-47 was beyond the analyzed scram time, which resulted in a degraded control rod drive. Exelon entered this issue into their corrective action program and immediate corrective actions included

fully inserting the control rod drive and developing a casual analysis to determine the degraded condition.

The performance deficiency is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of control rod drive 18-47 to perform its safety function due to a slower than normal scram time. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Identification, because Exelon did not identify issues completely, accurately, and in a timely manner in accordance with the program. Specifically, Exelon did not identify that the actual scram time of control rod drive 18-47 was beyond the analyzed scram time resulting in a degraded control rod drive. [P.1] (Section 1R15

Inspection Report# : 2016001 *(pdf)*

Significance: W Mar 31, 2016
Identified By: NRC
Item Type: VIO Violation
Inadequate Instructions for the Flexible Coupling Hose Preventative Maintenance Resulting in an Inoperable Emergency Diesel Generator
(Initial Entry)
The inspectors identified a preliminary White finding and associated apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Exelon did not appropriately prescribe instructions or procedures for maintenance on the emergency diesel generator (EDG) No. 1 cooling water system to ensure the EDG cooling flexible coupling hose was maintained to support the EDG safety function. Specifically, Exelon did not have appropriate work instructions to replace the EDG cooling flexible coupling hoses every 12 years as specified by Exelon's procedure and vendor information. As a result, the flexible coupling hose was in service for approximately 22 years and subjected to thermal degradation and aging that eventually led to the EDG No. 1 failure on January 4, 2016. As a consequence of this inappropriate work instruction issue, Exelon also violated Technical Specification 3.7.C because EDG No. 1 was determined to be inoperable for greater than the technical specification allowed outage time of seven days. Exelon's immediate corrective actions included entering the issue into their corrective action program (issue reports 2607247 and 2610027), replacing of the EDG No. 1 and No. 2 flexible coupling hoses, and initiating a failure analysis to determine the causes of the failed flexible coupling hose.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the ruptured flexible coupling hose caused the inability of the EDG No.1 to perform its safety function. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 2 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," issued June 19, 2012, the inspectors screened the finding for safety significance and determined that a detailed risk evaluation was required because EDG No. 1 was inoperable for greater than the technical specification allowed outage time of 7 days. The detailed risk evaluation concluded that the increase in core damage frequency was 5.1E-6, or White (low to moderate safety significance). This finding does not have an associated cross-cutting. aspect because the performance deficiency occurred in 2005 and is not reflective of present performance.
(IR 05000219/2016001 and 05000219/2016009 dated May 12, 2016)

(Final Entry)
The NRC staff performed this supplemental inspection in accordance with IP 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," to assess Exelon's evaluation of a performance deficiency

and violation of White significance, associated with the Mitigating Systems cornerstone, which was identified in the first quarter 2016 integrated inspection report (Agencywide Documents Access and Management System (ADAMS) Accession Number ML16132A436). The finding was associated with inadequate instructions for the flexible coupling hose preventative maintenance template resulting in an inoperable emergency diesel generator (EDG). The final significance determination and follow- up assessment letter for this finding, which was issued on July 6, 2016, documented that Oyster Creek transitioned to the Regulatory Response Column of the ROP Action Matrix, retroactive to the first quarter of 2016. The NRC staff was informed on June 14, 2016, of your staff's readiness for this inspection.

Based on the results of the inspection, the inspectors concluded that Exelon had adequately performed a root cause analysis of the event, and corrective actions, both completed and planned, were reasonable to address the related issues. Based on the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," dated October 18, 2013, and the results of this inspection, the White finding will be closed by this report. However, Oyster Creek will remain in the Regulatory Response Column until four quarters have elapsed since the White finding was originally documented in the first quarter of 2016. (IR 05000219/2016011 dated August 10, 2016)

Inspection Report# : 2016001 *(pdf)*
Inspection Report# : 2016009 *(pdf)*
Inspection Report# : 2016011 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 31, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Use Respiratory Protection as Required in RWP/ALARA Plan for Drywell Head Reassembly
A self-revealing Green NCV of Technical Specification 6.8.1, "Procedures and Programs" was identified for Exelon's failure to use respiratory protection, as required in the radiation work permit (RWP)/as low as reasonably achievable (ALARA) plan 14-406 for drywell head reassembly work on October 2, 2014. The radiation protection (RP) supervisor overseeing this work removed the respiratory protection requirement for this work contrary to the RWP/ALARA requirement and without engineering approval. As a result, two workers received an unplanned intake of radioactive material that resulted in unintended internal dose. Exelon stopped work on this task and subsequently enforced the respiratory protection requirements to complete the remaining work and entered this event into their corrective action program as issue report (IR) 2390111.

This finding is more than minor because it is associated with the Occupational Radiation Safety Cornerstone to ensure adequate protection of the worker from radiation exposure. Specifically, without the use of respiratory protection two

workers received unintended internal dose. The inspectors evaluated the finding using inspection manual chapter 0609, Appendix C, “Occupational Radiation Safety Significance Determination Process.” The inspectors determined that this finding is of very low safety significance (Green), because it did not result in an overexposure, there was no substantial potential for an overexposure, and the ability to assess dose was not compromised. This finding has a cross-cutting aspect in Human Performance, Procedural Adherence, because Exelon did not follow procedures and work instructions. Specifically, RP supervision instructed the workers that respiratory protection was not required contrary to the applicable RWP/ALARA plan. [H.8] (Section 2RS1)

Inspection Report# : 2016001 *(pdf)*

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : January 04, 2017

Oyster Creek
4Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Inadequate Maintenance Procedure associated with Reactor Recirculation Pump Seal
A self-revealing NCV of Technical Specification 6.8.1, "Procedures and Programs," was identified because Exelon did not adequately establish and maintain the reactor recirculation pump (RRP) reassembly maintenance procedures as required by NRC Regulatory Guide 1.33, Appendix A, Section 9, "Procedures for Performing Maintenance." Specifically, the RRP reassembly procedure, 2400-SMM-3226.03, "Reactor Recirculation Pump Mechanical Seal Rebuild Using CAN-2A Parts," did not provide critical dimensional checks for the locking plate and seal adjusting cap. Exelon entered this issue into their corrective action program as issue report 2663436. The corrective actions included revising RRP maintenance procedures to include critical dimensional information.

This finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and affected the objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown and power operation. Specifically, the incorrect reassembly of the 'D' RRP created a leakage path, which led to an unexpected increase in RCS unidentified leakage. As a result, the operators inserted a manual scram on April 30, 2016. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and IMC 0609, Appendix A, Exhibit 1, "Initiating Event Screening Questions." The inspectors determined that this finding is a transient initiator that did not contribute to both the likelihood of a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition, and therefore was of very low safety significance (Green). The inspectors determined that there was no cross-cutting aspect associated with this finding since it was not representative of current Exelon performance. Specifically, in accordance with IMC 0612, the causal factors associated with this finding occurred outside the nominal three-year period of consideration and were not considered representative of present performance. (Section 4AO3)

Inspection Report# : 2016002 *(pdf)*

Mitigating Systems

Significance: W Dec 31, 2016
Identified By: NRC
Item Type: AV Apparent Violation
'E' EMRV Failure to Stroke Due to Incorrect Reassembly
(Initial Entry)
The NRC identified a preliminary White finding and associated apparent violation of Technical Specification 6.8.1, "Procedures and Programs," and Technical Specification 3.4.B, "Automatic Depressurization System," because Exelon failed to implement a procedure related to the maintenance of safety related equipment. Specifically, Exelon

personnel did not follow EMRV reassembly instructions that required personnel to reinstall previously removed lock washers from the 'E' EMRV cut-out switch lever. The incorrect reassembly caused excessive friction between the solenoid frame and the cut-out switch lever, which led to the 'E' EMRV's failure to perform its safety function. This resulted in one inoperable EMRV for greater than the Technical Specification allowed outage time. The issue was entered into the corrective action program as issue report 2722109, and Exelon's immediate corrective actions include installing new cut-out switch lever plates with increased clearances, replacing star lock washers with split ring lock washers for additional clearance, and verifying the five EMRV solenoid actuations being installed into the drywell following the most recent refueling outage were correctly assembled.

The finding is more than minor because it adversely affects the human performance quality attribute of the Mitigating Systems fornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the missing lock washers due to the incorrect EMRV lever plate reassembly caused excessive friction between the solenoid frame and the cut-out switch lever, causing the cut-out switch lever to become bound in the energized position. This led to the 'E' EMRV's failure to perform its safety function.

The inspectors screened this issue for safety significance in accordance with Inspection Manual Chapter 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," and determined a detailed risk evaluation was required because the 'E' EMRV had potentially failed or was unreliable for greater than the Technical Specification allowed outage time. The finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon did not follow processes. Specifically, Exelon did not follow written instructions when reassembling the 'E' EMRV. The missing lock washers resulted in excessive friction between the solenoid frame and cut-out switch lever, causing the cut-out switch lever to become bound in the energized position, which led to the 'E' EMRV's failure to perform its safety function.

Inspection Report# : 2016004 *(pdf)*

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify a Slower than Normal Scram Time of a Control Rod Drive
The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Exelon did not promptly identify and correct a condition adverse to quality. Specifically, Exelon did not identify the scram time test result for control rod drive 18-47 was beyond the analyzed scram time, which resulted in a degraded control rod drive. Exelon entered this issue into their corrective action program and immediate corrective actions included fully inserting the control rod drive and developing a casual analysis to determine the degraded condition.

The performance deficiency is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the reliability of control rod drive 18-47 to perform its safety function due to a slower than normal scram time. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Initial Screening and Characterization of Findings," and determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Identification, because Exelon did not identify issues completely, accurately, and in a timely manner in accordance with the program. Specifically, Exelon did not identify that the actual scram time of control rod drive 18-47 was beyond the analyzed scram time resulting in a degraded control rod drive. [P.1] (Section 1R15

Inspection Report# : 2016001 *(pdf)*

Significance: W Mar 31, 2016
Identified By: NRC
Item Type: VIO Violation
Inadequate Instructions for the Flexible Coupling Hose Preventative Maintenance Resulting in an Inoperable Emergency Diesel Generator
(Initial Entry)
The inspectors identified a preliminary White finding and associated apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Exelon did not appropriately prescribe instructions or procedures for maintenance on the emergency diesel generator (EDG) No. 1 cooling water system to ensure the EDG cooling flexible coupling hose was maintained to support the EDG safety function. Specifically, Exelon did not have appropriate work instructions to replace the EDG cooling flexible coupling hoses every 12 years as specified by Exelon's procedure and vendor information. As a result, the flexible coupling hose was in service for approximately 22 years and subjected to thermal degradation and aging that eventually led to the EDG No. 1 failure on January 4, 2016. As a consequence of this inappropriate work instruction issue, Exelon also violated Technical Specification 3.7.C because EDG No. 1 was determined to be inoperable for greater than the technical specification allowed outage time of seven days. Exelon's immediate corrective actions included entering the issue into their corrective action program (issue reports 2607247 and 2610027), replacing of the EDG No. 1 and No. 2 flexible coupling hoses, and initiating a failure analysis to determine the causes of the failed flexible coupling hose.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the ruptured flexible coupling hose caused the inability of the EDG No.1 to perform its safety function. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 2 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," issued June 19, 2012, the inspectors screened the finding for safety significance and determined that a detailed risk evaluation was required because EDG No. 1 was inoperable for greater than the technical specification allowed outage time of 7 days. The detailed risk evaluation concluded that the increase in core damage frequency was 5.1E-6, or White (low to moderate safety significance). This finding does not have an associated cross-cutting. aspect because the performance deficiency occurred in 2005 and is not reflective of present performance.
(IR 05000219/2016001 and 05000219/2016009 dated May 12, 2016)

(Final Entry)
The NRC staff performed this supplemental inspection in accordance with IP 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," to assess Exelon's evaluation of a performance deficiency and violation of White significance, associated with the Mitigating Systems cornerstone, which was identified in the first quarter 2016 integrated inspection report (Agencywide Documents Access and Management System (ADAMS) Accession Number ML16132A436). The finding was associated with inadequate instructions for the flexible coupling hose preventative maintenance template resulting in an inoperable emergency diesel generator (EDG). The final significance determination and follow- up assessment letter for this finding, which was issued on July 6, 2016, documented that Oyster Creek transitioned to the Regulatory Response Column of the ROP Action Matrix, retroactive to the first quarter of 2016. The NRC staff was informed on June 14, 2016, of your staff's readiness for this inspection.

Based on the results of the inspection, the inspectors concluded that Exelon had adequately performed a root cause analysis of the event, and corrective actions, both completed and planned, were reasonable to address the related issues. Based on the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," dated October 18, 2013, and the results of this inspection, the White finding will be closed by this report. However, Oyster Creek will remain in the Regulatory Response Column until four quarters have elapsed since the White finding was originally documented in the first quarter of 2016. (IR 05000219/2016011 dated August 10, 2016)

Inspection Report# : 2016001 *(pdf)*
Inspection Report# : 2016009 *(pdf)*
Inspection Report# : 2016011 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Mar 31, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Use Respiratory Protection as Required in RWP/ALARA Plan for Drywell Head Reassembly
A self-revealing Green NCV of Technical Specification 6.8.1, "Procedures and Programs" was identified for Exelon's failure to use respiratory protection, as required in the radiation work permit (RWP)/as low as reasonably achievable (ALARA) plan 14-406 for drywell head reassembly work on October 2, 2014. The radiation protection (RP) supervisor overseeing this work removed the respiratory protection requirement for this work contrary to the RWP/ALARA requirement and without engineering approval. As a result, two workers received an unplanned intake of radioactive material that resulted in unintended internal dose. Exelon stopped work on this task and subsequently enforced the respiratory protection requirements to complete the remaining work and entered this event into their corrective action program as issue report (IR) 2390111.

This finding is more than minor because it is associated with the Occupational Radiation Safety Cornerstone to ensure adequate protection of the worker from radiation exposure. Specifically, without the use of respiratory protection two workers received unintended internal dose. The inspectors evaluated the finding using inspection manual chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process." The inspectors determined that this finding is of very low safety significance (Green), because it did not result in an overexposure, there was no substantial potential for an overexposure, and the ability to assess dose was not compromised. This finding has a cross-cutting aspect in Human Performance, Procedural Adherence, because Exelon did not follow procedures and work instructions. Specifically, RP supervision instructed the workers that respiratory protection was not required contrary to the applicable RWP/ALARA plan. [H.8] (Section 2RS1)

Inspection Report# : 2016001 *(pdf)*

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : February 01, 2017

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Oyster Creek – Quarterly Plant Inspection Findings

2Q/2017 – Plant Inspection Findings

On this page:

Initiating Events

Mitigating Systems

Significance: W Dec 31, 2016
Identified By: NRC
Item Type: AV Apparent Violation
'E' EMRV Failure to Stroke Due to Incorrect Reassembly
(Initial Entry)

The NRC identified a preliminary White finding and associated apparent violation of Technical Specification 6.8.1, "Procedures and Programs," and Technical Specification 3.4.B, "Automatic Depressurization System," because Exelon failed to implement a procedure related to the maintenance of safety related equipment. Specifically, Exelon personnel did not follow electromatic relief valve (EMRV) reassembly instructions that required personnel to reinstall previously removed lock washers from the 'E' EMRV cut-out switch lever. The incorrect reassembly caused excessive friction between the solenoid frame and the cut-out switch lever, which led to the 'E' EMRV's failure to perform its safety function. This resulted in one inoperable EMRV for greater than the Technical Specification allowed outage time. The issue was entered into the corrective action program as issue report 2722109, and Exelon's immediate corrective actions include installing new cut-out switch lever plates with increased clearances, replacing star lock washers with split ring lock washers for additional clearance, and verifying the five EMRV solenoid actuators being installed into the drywell following the most recent refueling outage were correctly assembled.

The finding is more than minor because it adversely affects the human performance quality attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the missing lock washers due to the incorrect EMRV lever plate reassembly caused excessive friction between the solenoid frame and the cut-out switch lever, causing the cut-out switch lever to become bound in the energized position. This led to the 'E' EMRV's failure to

perform its safety function. The inspectors screened this issue for safety significance in accordance with Inspection Manual Chapter 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," and determined a detailed risk evaluation was required because the 'E' EMRV had potentially failed or was unreliable for greater than the Technical Specification allowed outage time.

A detailed risk evaluation concluded that the increase in core damage frequency (CDF) related to the failure of the 'E' EMRV is 5.4E-6/year; therefore, this finding was preliminary determined to have a low to moderate safety significance (White). Due to the nature of the failure, no recovery credit was assigned. The dominant core damage sequences involve loss of main feedwater events with operator errors resulting in failure to make-up to the isolation condensers or otherwise maintain reactor vessel level and the loss of reactor pressure vessel depressurization capability (due to common cause failure of the remaining four EMRVs).

The finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon personnel did not follow station processes. Specifically, Exelon did not follow written instructions when reassembling the 'E' EMRV. The missing lock washers resulted in excessive friction between the solenoid frame and cut-out switch lever, causing the cut-out switch lever to become bound in the energized position, which led to the 'E' EMRV's failure to perform its safety function.
Inspection Report# : 2016004 *(pdf)*

Barrier Integrity
Emergency Preparedness
Occupational Radiation Safety
Public Radiation Safety
Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : August 03, 2017

Page Last Reviewed/Updated Wednesday, August 10, 2016

Oyster Creek – Quarterly Plant Inspection Findings

2Q/2017 – Plant Inspection Findings

On this page:

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2017
Identified By: NRC
Item Type: FIN Finding
Inadequate Operability Determination of No. 2 EDG degraded fuel oil filter
The inspectors identified a finding associated with Exelon procedure OP-AA-108-115, "Operability Determinations," because Exelon did not adequately assess the No. 2 emergency diesel generator operability with a degraded fuel oil filter. Specifically, Exelon did not adequately assess the capability of the emergency diesel generator to perform its function during its credited duration time of 72 hours. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 3999576 and IR 3990799 and subsequently replaced the fuel oil filter.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. This issue was also similar to Example 3j of IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of the No. 2 emergency diesel generator and additional analysis was necessary to verify operability. The inspectors evaluated the finding using Exhibit 2, "Mitigating System Screening Questions," in Appendix A to IMC 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, because Exelon did not thoroughly evaluate the issue associated with the degraded fuel oil filter and its impact to the No. 2 emergency diesel generator operability [P.2].
Inspection Report# : 2017002 *(pdf)*

Significance: W Dec 31, 2016
Identified By: NRC
Item Type: AV Apparent Violation
'E' EMRV Failure to Stroke Due to Incorrect Reassembly
(Initial Entry)

The NRC identified a preliminary White finding and associated apparent violation of Technical Specification 6.8.1, "Procedures and Programs," and Technical Specification 3.4.B, "Automatic Depressurization System," because Exelon failed to implement a procedure related to the maintenance of safety related equipment. Specifically, Exelon personnel did not follow electromatic relief valve (EMRV) reassembly instructions that required personnel to reinstall previously removed lock washers from the 'E' EMRV cut-out switch lever. The incorrect reassembly caused excessive friction between the solenoid frame and the cut-out switch lever, which led to the 'E' EMRV's failure to perform its safety function. This resulted in one inoperable EMRV for greater than the Technical Specification allowed outage time. The issue was entered into the corrective action program as issue report 2722109, and Exelon's immediate corrective actions include installing new cut-out switch lever plates with increased clearances, replacing star lock washers with split ring lock washers for additional clearance, and verifying the five EMRV solenoid actuators being installed into the drywell following the most recent refueling outage were correctly assembled.

The finding is more than minor because it adversely affects the human performance quality attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the missing lock washers due to the incorrect EMRV lever plate reassembly caused excessive friction between the solenoid frame and the cut-out switch lever, causing the cut-out switch lever to become bound in the energized position. This led to the 'E' EMRV's failure to perform its safety function. The inspectors screened this issue for safety significance in accordance with Inspection Manual Chapter 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," and determined a detailed risk evaluation was required because the 'E' EMRV had potentially failed or was unreliable for greater than the Technical Specification allowed outage time.

A detailed risk evaluation concluded that the increase in core damage frequency (CDF) related to the failure of the 'E' EMRV is 5.4E-6/year; therefore, this finding was preliminary determined to have a low to moderate safety significance (White). Due to the nature of the failure, no recovery credit was assigned. The dominant core damage sequences involve loss of main feedwater events with operator errors resulting in failure to make-up to the isolation condensers or otherwise maintain reactor vessel level and the loss of reactor pressure vessel depressurization capability (due to common cause failure of the remaining four EMRVs).

The finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon personnel did not follow station processes. Specifically, Exelon did not follow written instructions when reassembling the 'E' EMRV. The missing lock washers resulted in excessive friction between the solenoid frame and cut-out switch lever, causing the cut-out switch lever to become bound in the energized position, which led to the 'E' EMRV's failure to perform its safety function.
Inspection Report# : 2016004 *(pdf)*

Barrier Integrity
Emergency Preparedness
Occupational Radiation Safety
Public Radiation Safety
Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : September 05, 2017

Page Last Reviewed/Updated Wednesday, June 07, 2017

Oyster Creek – Quarterly Plant Inspection Findings

3Q/2017 – Plant Inspection Findings

On this page:

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2017
Identified By: NRC
Item Type: FIN Finding
Inadequate Operability Determination of No. 2 EDG degraded fuel oil filter
The inspectors identified a finding associated with Exelon procedure OP-AA-108-115, "Operability Determinations," because Exelon did not adequately assess the No. 2 emergency diesel generator operability with a degraded fuel oil filter. Specifically, Exelon did not adequately assess the capability of the emergency diesel generator to perform its function during its credited duration time of 72 hours. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 3999576 and IR 3990799 and subsequently replaced the fuel oil filter.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. This issue was also similar to Example 3j of IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of the No. 2 emergency diesel generator and additional analysis was necessary to verify operability. The inspectors evaluated the finding using Exhibit 2, "Mitigating System Screening Questions," in Appendix A to IMC 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, because Exelon did not thoroughly evaluate the issue associated with the degraded fuel oil filter and its impact to the No. 2 emergency diesel generator operability [P.2].
Inspection Report# : 2017002 *(pdf)*

Significance: W Jan 25, 2017
Identified By: NRC
Item Type: AV Apparent Violation
'E' EMRV Failure to Stroke Due to Incorrect Reassembly

Inspection Report# : 2016004 *(pdf)*
Inspection Report# : 2017008 *(pdf)*

Barrier Integrity
Emergency Preparedness
Occupational Radiation Safety
Public Radiation Safety
Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : November 29, 2017

Page Last Reviewed/Updated Monday, November 06, 2017

U.S.NRC
United States Nuclear Regulatory Commission
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Oyster Creek – Quarterly Plant Inspection Findings

4Q/2017 – Plant Inspection Findings

On this page:

Initiating Events

Mitigating Systems

Significance: G Aug 03, 2017
Identified By: NRC
Item Type: FIN Finding
Inadequate Operability Determination of No. 2 EDG degraded fuel oil filter
The inspectors identified a finding associated with Exelon procedure OP-AA-108-115, "Operability Determinations," because Exelon did not adequately assess the No. 2 emergency diesel generator operability with a degraded fuel oil filter. Specifically, Exelon did not adequately assess the capability of the emergency diesel generator to perform its function during its credited duration time of 72 hours. Exelon entered this issue into the corrective action program for resolution as issue report (IR) 3999576 and IR 3990799 and subsequently replaced the fuel oil filter.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. This issue was also similar to Example 3j of IMC 0612, Appendix E, "Examples of Minor Issues," because the condition resulted in reasonable doubt of the operability of the No. 2 emergency diesel generator and additional analysis was necessary to verify operability. The inspectors evaluated the finding using Exhibit 2, "Mitigating System Screening Questions," in Appendix A to IMC 0609, "Significance Determination Process." The inspectors determined that this finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component (SSC), where the SSC maintained its operability or functionality. Therefore, inspectors determined the finding to be of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, because Exelon did not thoroughly evaluate the issue associated with the degraded fuel oil filter and its impact to the No. 2 emergency diesel generator operability [P.2].
Inspection Report# : 2017002 *(pdf)*

Significance: W Jan 25, 2017
Identified By: NRC
Item Type: AV Apparent Violation
'E' EMRV Failure to Stroke Due to Incorrect Reassembly

(Initial Entry)

The NRC identified a preliminary White finding and associated apparent violation of Technical Specification 6.8.1, "Procedures and Programs," and Technical Specification 3.4.B, "Automatic Depressurization System," because Exelon failed to implement a procedure related to the maintenance of safety related equipment. Specifically, Exelon personnel did not follow electromatic relief valve (EMRV) reassembly instructions that required personnel to reinstall previously removed lock washers from the 'E' EMRV cut-out switch lever. The incorrect reassembly caused excessive friction between the solenoid frame and the cut-out switch lever, which led to the 'E' EMRV's failure to perform its safety function. This resulted in one inoperable EMRV for greater than the Technical Specification allowed outage time. The issue was entered into the corrective action program as issue report 2722109, and Exelon's immediate corrective actions include installing new cut-out switch lever plates with increased clearances, replacing star lock washers with split ring lock washers for additional clearance, and verifying the five EMRV solenoid actuators being installed into the drywell following the most recent refueling outage were correctly assembled.

The finding is more than minor because it adversely affects the human performance quality attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the missing lock washers due to the incorrect EMRV lever plate reassembly caused excessive friction between the solenoid frame and the cut-out switch lever, causing the cut-out switch lever to become bound in the energized position. This led to the 'E' EMRV's failure to perform its safety function. The inspectors screened this issue for safety significance in accordance with Inspection Manual Chapter 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," and determined a detailed risk evaluation was required because the 'E' EMRV had potentially failed or was unreliable for greater than the Technical Specification allowed outage time.

A detailed risk evaluation concluded that the increase in core damage frequency (CDF) related to the failure of the 'E' EMRV is 5.4E-6/year; therefore, this finding was preliminary determined to have a low to moderate safety significance (White). Due to the nature of the failure, no recovery credit was assigned. The dominant core damage sequences involve loss of main feedwater events with operator errors resulting in failure to make-up to the isolation condensers or otherwise maintain reactor vessel level and the loss of reactor pressure vessel depressurization capability (due to common cause failure of the remaining four EMRVs).

The finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon personnel did not follow station processes. Specifically, Exelon did not follow written instructions when reassembling the 'E' EMRV. The missing lock washers resulted in excessive friction between the solenoid frame and cut-out switch lever, causing the cut-out switch lever to become bound in the energized position, which led to the 'E' EMRV's failure to perform its safety function.

(First Update) Final significance determination Letter (White) issued on April 13, 2017 (ML17101A422).

(Second Update) Inspection Procedure 95001, "Supplemental Inspection Response to Action Matrix Column 2 Inputs" was completed on September 14, 2017. The Supplemental Inspection Report (05000219/2017008) and Assessment Follow-up Letter was issued on October 17, 2017 (ML17291A306). As a result, Oyster Creek transitioned to Licensee Response Column as of October 1, 2017.

Inspection Report# : 2016004 *(pdf)*
Inspection Report# : 2017008 *(pdf)*

Barrier Integrity
Emergency Preparedness
Occupational Radiation Safety
Public Radiation Safety
Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : February 01, 2018

Page Last Reviewed/Updated Monday, November 06, 2017