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