

Oyster Creek

2Q/2012 Plant Inspection Findings

Initiating Events

Significance:  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:  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)

G

Significance: 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)

G

Significance: 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)

G

Significance: 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)

G**Significance:** 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 40A2).

Inspection Report# : [2012002](#) (pdf)

Emergency Preparedness

Significance:  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:  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 IV 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 IV 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

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