

Oyster Creek 2Q/2015 Plant Inspection Findings

Initiating Events

Significance:  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:  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:  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 III, "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:  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:  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 40A2)

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 IV. The NRC identified a Severity Level IV 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 IR17.1).

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:  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