

Waterford 3 1Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to provide adequate post modification testing instructions for vibration monitoring on the feedwater piping system following steam generator replacement

The inspectors reviewed a self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, because the licensee did not provide adequate post modification testing instructions for activities affecting quality to the circumstances that included appropriate acceptance criteria for determining that important activities have been satisfactorily accomplished. Specifically, the licensee did not provide adequate post modification testing instructions for vibration monitoring of the feedwater piping system that included appropriate acceptance criteria following the installation of the new replacement steam generators. As a result, the plant experienced an automatic reactor trip and a subsequent down power due to an increase in vibrations on the feedwater piping system without appropriate acceptance criteria and monitoring during power ascension. The licensee entered this issue into their corrective action program as CR-WF3-2013-0445. The immediate corrective actions taken to restore compliance included the implementation of a revised vibration-monitoring plan to include appropriate acceptance criteria and the development of engineering changes to mitigate vibration effects on the feedwater piping system.

The failure to provide adequate post modification testing instructions for vibration monitoring of feedwater piping system following steam generator replacement was a performance deficiency. Specifically, the licensee did not provide adequate post modification testing instructions for vibration monitoring on the feedwater piping system. The performance deficiency was more than minor because it was associated with the design control 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 power operations. The inspectors used the NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," to evaluate this issue. The inspectors determined that the finding was of very low safety significance (Green) because the transient initiator did not contribute to the likelihood that mitigation equipment or functions would not be available. The inspectors concluded that the finding reflected current licensee performance and involved a cross-cutting aspect in the operating experience component of the problem identification and resolution area in that the licensee did not implement operating experience through changes to station equipment to support plant safety [P.2.b].

Inspection Report# : [2013003](#) (*pdf*)

Mitigating Systems

Significance: G Feb 20, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Establish Adequate Design Control Measures for the Selection and Review for the Suitability of Application of Molded Case Circuit Breakers (Section 40A2.2)

A self-revealing, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," occurred because the licensee did not establish design control measures for the selection and review for the suitability of application of a molded case circuit breaker that was essential to the safety-related function of a shutdown cooling heat exchanger fan cooler. Specifically, the licensee did not select and review for the suitability of the correct safety-related circuit breaker for the application to provide circuit fault protection to the train B shutdown cooling heat exchanger air handling unit fan motor. The licensee entered this condition into their corrective action program as Condition Reports

CR-WF3-2013-02316 and CR-WF3-2013-04644. The immediate corrective action taken to restore compliance included the replacement of the breaker with a breaker more suitable for the application to protect the air handling unit fan motor. The planned corrective actions included an extent of condition review for other installed breakers and the revision of work order instructions to eliminate the practice of substituting and using the factory acceptance testing for pre-installation and post-maintenance tests, respectively.

The inspectors concluded that the failure to establish design control measures for the selection and review for suitability of application for the correct safety-related circuit breaker was a performance deficiency. The performance deficiency was more than minor because it was associated with the design 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. Specifically, the incorrect breaker affected the availability, reliability, and capability of the

- 5 -

shutdown cooling heat exchanger fan coolers to remove heat from the shutdown cooling heat exchanger areas following a design basis accident. The inspectors performed the initial significance determination. The inspectors used the NRC Inspection Manual 0609, Attachment 4, "Initial Screening and Characterization of Findings." The initial screening directed the inspectors to use Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2, Section A, to determine the significance of the finding. The finding required a detailed risk evaluation because it involved a potential loss of one train of safety-related equipment for longer than the technical specification allowed outage time. The total exposure period was 23 days. The allowed outage time was 7 days. A Region IV senior reactor analyst performed the detailed risk evaluation and determined that the change to the core damage frequency was 5E-13/year (Green). The dominant core damage sequences included loss of offsite power events, failure of both trains of containment spray, and the failure of a pressurizer safety relief valve to remain closed. The equipment that helped mitigate the risk included the emergency diesel generators and the essential feedwater systems.

The inspectors concluded that the finding reflected current licensee performance and involved a cross-cutting aspect of avoiding complacency in the human performance area because the licensee did not recognize and plan for the possibility of mistakes, latent issues, and inherent risk on relying on 21 year old vendor information and installing a breaker without pre-installation and adequate post-maintenance testing.

Inspection Report# : [2014002](#) (*pdf*)

Significance: G Jan 08, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Replace an Essential Chiller Oil Pump prior to the End of Duty Life.

A Green self-revealing, non-cited violation of Technical Specification 6.8.1.a, occurred because the licensee did not establish preventative maintenance schedule to inspect or replace an item that have a specific lifetime. Specifically, the licensee did not establish a preventative maintenance schedule to inspect or replace the oil pump motors associated with the essential chillers prior to the pump motor exceeding its duty life. As a result, the pump associated with essential chiller B failed in-service. The licensee entered this condition into their corrective action program as condition report CR-WF3-2014-00095. The immediate corrective action taken to restore compliance was to issue an action request to establish the periodic replacement of the essential chiller pumps prior to the end of their vendor

recommended service life.

The failure to establish a preventative maintenance schedule to inspect or replace the oil pump motors associated with the essential chillers prior to the end of the vendor provided duty life was a performance deficiency. The performance deficiency was more than minor because it was associated with the equipment performance 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. Specifically, the failure to establish a preventative maintenance schedule to inspect or replace the oil pumps associated with the essential chillers prior to the duty life resulted in the failure of a pump while in service and the unavailability of essential chiller B. The inspectors used NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," to evaluate this issue. The inspectors categorized the finding as having very low safety significance (Green) because the finding 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 the licensee's maintenance rule program for greater than 24 hours. The inspectors concluded that the finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency did not reflect current licensee performance.

Inspection Report# : [2014002](#) (*pdf*)

Significance: G Jan 06, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Establish Procedures for Using the Alternate Emergency Fuel Oil Storage Tank Fill Line.

An NRC-identified Green, non-cited violation of Technical Specification 6.8.1.a, occurred because the licensee did not establish written procedures for filling emergency power sources. Specifically, the licensee did not establish procedures to fill the fuel oil storage tanks for the emergency diesel generators using the safety related, seismic category I alternate emergency fill line. The licensee entered this condition into their corrective action program as condition report CR-WF3-2014-00636. The immediate corrective action taken to restore compliance was to initiate actions for developing procedures for filling the emergency diesel generator fuel oil storage tanks using the alternate emergency fill line.

The failure to develop procedures for filling emergency power sources was a performance deficiency. The performance deficiency was more than minor because it was associated with the procedure quality 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. Specifically, the failure to establish procedures for the filling of the emergency diesel fuel oil storage tanks using the Seismic Category I alternate emergency fill connection reduced the licensee's capability and reliability to for filling the fuel oil storage tanks following an extreme weather event. The inspectors inspector performed the initial significance determination and used Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings at-Power," Exhibit 2, "Mitigating Systems Screening Questions," to evaluate this issue. The finding required a detailed risk evaluation because the performance deficiency could have resulted in a loss of safety function (onsite AC power) because the system may not have remained operable for its 30 day design basis accident mission time. Therefore, a Region IV senior reactor analyst performed a detailed risk evaluation for this issue. The analyst determined that the finding was of very low safety significance (Green) because the diesel generators would have remained functional for their 24-hour probabilistic risk assessment mission time. This shorter mission time is used for detailed risk evaluations because, after 24 hours, the NRC assumes that the licensee has substantially more resources available to help mitigate the accident. The dominant core damage sequences included longer term loss of offsite power events and the common cause failure of the diesel generators because of potential problems refilling the diesel fuel oil storage tanks. The relatively long period prior to ultimate diesel generator failure helped to minimize the risk. The finding was not a significant contributor to the large early release frequency. The inspectors concluded that the finding reflected current licensee performance and involved an avoiding complacency cross-cutting aspect of the human performance area in that the licensee did not recognize and plan for the possibility

of mistakes, latent issues, and inherent risk, even while expecting successful outcomes.

Inspection Report# : [2014002](#) (*pdf*)

Significance:  Jan 03, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform an Evaluation for Transient Combustibles.

An NRC-identified Green, non-cited violation of Waterford's Facility Operating License Number NPF-38, License Condition 2.C.9 and the Fire Protection Program occurred because the licensee failed to follow procedures. Specifically, the licensee did not perform a transient combustible evaluation as required by EN-DC-161, "Control of Combustibles," to evaluate the impact of capturing and storing up to two gallons of leaking fuel oil in the train B emergency diesel generator room. As a result, the licensee was not performing required hourly fire watches. The licensee entered this condition into their corrective action program as condition report CR-WF3-2013-6020 and CR-WF3-2013-06123. The immediate corrective action taken to restore compliance was to perform a transient combustible evaluation implement hourly fire watches.

The failure to implement a fire protection program procedure was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external factors (i.e., fire) 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. Specifically, the failure to perform a transient combustible evaluation when a flammable liquid above one pint in an approved container was present in the B emergency diesel generator room prevented the licensee from implementing required compensatory measures in response to the presence of transient combustibles. In addition, similar to NRC Inspection Manual Chapter 0612, Appendix E, Section 4, Example k of a more than minor violation, the failure of the leak collection device resulting in fuel oil around emergency diesel generator B represented a credible fire scenario involving transient combustibles that could affect equipment important to safety. The inspectors used NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," to evaluate this issue. The inspectors categorized the finding under Fire Prevention and Administrative Controls and qualitatively screened it as very low safety significance (Green) because the impact of the fire finding was limited to no more than one train of equipment important to safety. The inspectors concluded that the finding reflected current licensee performance and involved a conservative bias cross-cutting aspect in the human performance area in that the licensee did not use decision making practices that emphasized prudent choices over those that are simply allowable.

Inspection Report# : [2014002](#) (*pdf*)

Significance:  Dec 20, 2013

Identified By: NRC

Item Type: AV Apparent Violation

Failure to establish an adequate test program to demonstrate that the train B EDG exhaust fan would perform satisfactorily in service

Inspection Report# : [2013008](#) (*pdf*)

Significance:  Sep 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement Fire Protection Program Procedure Requirements When Securing from a Fire Watch

The inspectors identified a non-cited violation of Waterford's Facility Operating License Number NPF-38, License Condition 2.C.9, because the licensee did not implement fire protection procedure FP-001-014, "Duties of a Fire Watch." Specifically, the licensee's fire watch personnel did not implement Section 6.5 of FP-001-014 to remove firefighting equipment from work areas when securing from a fire watch. As a result, multiple undercharged fire extinguishers were left in a fire area. The inspectors determined that this would affect safety-related equipment because it would delay the response to fires in the fire areas. The licensee entered this condition into their corrective action program as CR-WF3-2013-03398 and CR WF3-2013-03523 for resolution. The immediate corrective actions taken to restore compliance included the removal of all undercharged fire extinguishers from deactivated posts and returning them to their proper storage location.

The failure to implement a fire protection program procedure was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external factors (i.e., fire) 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. Specifically, the failure to remove undercharged fire extinguishers from work areas that contained safe shutdown equipment could hinder responses to fires in the fire area. The inspectors used the NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," to evaluate this issue. The initial screening directed the inspectors to use Appendix F, "Fire Protection Significance Determination Process," to determine the significance of the finding. The inspectors determined that the finding had a low degradation rating because it reflected a fire protection program element whose performance and reliability would be minimally impacted. Specifically, in all cases identified, there were permanent fully charged portable fire extinguishers of the proper type nearby. Therefore, the finding was of very low safety significance (Green). The inspectors concluded that the finding reflected current licensee performance and involved a cross-cutting aspect in the work practices component of the human performance area in that the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported [H.4(c)].

Inspection Report# : [2013004](#) (pdf)

Significance:  Sep 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to accomplish activities affecting quality on a degraded safety-related solenoid valve in accordance with procedure requirements

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because the licensee did not accomplish activities affecting quality on a degraded safety-related train B component cooling water (CCW) bypass valve (CC-134B) in accordance with maintenance procedure EN-MA-101, "Fundamentals of Maintenance." Specifically, the licensee did not control and perform testing on a leaking solenoid valve related to the operation of a safety-related bypass valve (CC-134B) after maintenance personnel removed the degraded equipment from service as required by Section 5.10 of EN-MA-101. As a result, the licensee could not characterize and determine the cause of the leakage for the safety-related valve. The inspectors determined that this would challenge the safety function of the valve to provide CCW to the ultimate heat sink following a tornado event. The licensee entered this condition into their corrective action program as CR-WF3-2012-05991, CR-WF3-2012-06288, and CR WF3-2013-04047. The immediate corrective actions taken to restore compliance included the installation of a new valve and debriefing personnel about controlling equipment removed from service when combining preventative and corrective maintenance tasks in one work order.

The failure to control failed equipment removed from the plant to determine the cause in accordance with maintenance procedure requirements was a performance deficiency. The performance deficiency was more than minor because it was associated with the equipment performance attribute of the Mitigating System 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. Specifically, the degraded condition challenged the safety function of the valve (CC-134B) to limit the loss of CCW through damaged portions of the dry cooling tower fans following a tornado-generated missile strike. The inspectors used the NRC Inspection Manual 0609, Attachment 4, "Initial Characterization of Findings," to evaluate this issue. The finding required a detailed analysis because it was potentially risk significant for an external event (tornado). Therefore, the senior reactor analyst performed a bounding detailed risk evaluation. The senior reactor analyst determined that the finding was of very low safety significance (Green). The bounding change to the core damage frequency was less than $3E-7$ /year. The finding was not significant with respect to the large early release frequency. The dominant core damage sequences included tornado induced losses of offsite power, failure of the dry cooling tower pressure boundary, failure to isolate the damaged dry cooling tower, and failure to recover instrument air. The redundant train A component cooling water system combined with the tornado frequency helped to reduce the risk exposure. The inspectors concluded that the finding reflected current licensee performance and involved a cross-cutting aspect in the work control component of the human performance area in that the licensee did not appropriately coordinate work activities by incorporating actions to address the impact of changes to work scope or activity on plant and human performance [H.3(b)].

Inspection Report# : [2013004](#) (*pdf*)

Significance: G Jun 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to provide adequate design control measures for verifying or checking the adequacy of the effects of a PMP flooding event on the reactor auxiliary building roof areas that contained safety-related

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, because the licensee did not provide design control measures for verifying or checking the adequacy of the features designed to withstand the effects of a probable maximum precipitation (PMP) flooding event on the reactor auxiliary building (RAB) roof areas. Specifically, the licensee did not provide an analysis to demonstrate that adequate flood protection existed from the effects of a PMP flooding event on safety-related components and electrical equipment located on the roof of the RAB in the main steam isolation valve (MSIV) wing areas. As a result, the licensee did not perform an analysis to determine if expected ponding levels from a PMP flooding event would challenge safety-related components and electrical equipment such as the emergency feedwater flow control and isolation valves and cables, main steam isolation valves and cables, atmospheric dump valves, and back-up nitrogen accumulator components. The licensee entered this issue into their corrective action program as CR-WF3-2012-7520. The immediate corrective actions taken to restore compliance included the performance of a preliminary analysis to show that the installed scuppers and roof drains have margin to protect against a local PMP flooding event and that the ponding depth would have little or no affect on the safety-related equipment and cables located in the MSIV wing areas.

The failure to provide design control measures for verifying or checking the adequacy of the features designed to withstand the effects of a local PMP on the RAB roof areas was a performance deficiency. The performance deficiency was more than minor because it was associated with the design control attribute of the Mitigating System cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the safety-related equipment located on the RAB roof in the MSIV wing areas are required to safely shutdown and maintain the reactor in a cold shutdown condition following accidents and anticipated operational occurrences. The inspectors used the NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings" and Appendix A, "The Significance Determination Process for Findings At-Power," to evaluate this issue. The inspectors determined that the finding was of very low safety significance (Green) because it did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather initiating event. The inspectors concluded that the finding reflected current licensee performance and involved a cross-cutting aspect in the corrective action program component of the problem identification and resolution area in that the licensee did not identify potential flooding issues completely, accurately, and in a timely manner commensurate with their safety significance [P.1.a].

Inspection Report# : [2013003](#) (pdf)

Significance: N/A Jun 30, 2013

Identified By: NRC

Item Type: VIO Violation

Failure to submit a licensee event report within 60 days of discovery of a condition that affected the manual hand-wheel operation of safety related air operated valves following a loss of their corr

The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.73(a)(1) because the licensee did not submit a Licensee Event Report (LER) in a timely manner after the discovery of a reportable event. Specifically, the licensee failed to submit a required LER within 60 days after the discovery of a condition that affected the manual hand-wheel operation of safety related air operated valves following a loss of their corresponding back-up nitrogen accumulators. The licensee determined that the manual hand-wheel function on the essential chiller and emergency feedwater isolation and backup flow control valves did not work. The licensee was aware of the condition that existed but did not adequately evaluate the condition as a part of their reportability review. The licensee entered this issue into their corrective action program as CR-WF3-2013-2564. The immediate corrective actions taken to restore compliance included a new reportability review of the condition and the development of an LER.

The failure to submit a required LER within 60 days after discovery of a condition that required a report was a violation of NRC requirements. The inspectors determined that this violation was also a performance deficiency. However, the inspectors determined that the performance deficiency was minor. The inspectors considered this issue to be within the traditional enforcement process because it had the potential to impact the NRC's ability to perform its regulatory oversight function. The inspectors used the NRC Enforcement Policy to evaluate the significance of this violation. The inspectors determined that the violation was a Severity Level IV because it was similar to an example provided in Section 6.9 of the NRC Enforcement Policy. The inspectors did not assign a cross-cutting aspect to this non-cited violation because there was no finding associated with this traditional enforcement violation.

Inspection Report# : [2013003](#) (pdf)

Significance:  Sep 24, 2012

Identified By: NRC

Item Type: VIO Violation

Failure to Take Timely Corrective Action to Establish a Basis for Flood Control Measures

The team identified a cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control", for the failure to establish measures to assure that applicable regulatory requirements and the design basis as defined in 10 CFR 50.2 are correctly translated into procedures. Specifically, the licensee has not determined a basis for the level at which flood control measures are initiated, two years after receiving a non-cited violation for the same deficiency. As an interim compensatory measure for a previous violation of inadequate technical specifications, the licensee modified their flooding procedure to include an action to start shutting flood control doors at a river level of 24 feet instead of 27 feet. The licensee recognized the need to establish a basis for initiating these actions at 24 feet, and issued a corrective action to track completion. The licensee extended the due date several times and had not completed it by the arrival of the inspection team. The inspection team questioned why the licensee had not completed the calculation to justify their basis for their compensatory measures, noting that it had been over two years since the original violation was identified. The inspectors verified through walk-downs, procedure reviews, and historical data that the licensee's use of 24 feet did not represent an immediate operability concern, and that the current river level was sufficiently low to allow time for the licensee to correct the deficiency. This finding was entered into the licensee's corrective action program as condition report CR-WF3-2012-03752.

The failure to complete the corrective action to establish a basis for flood control measures in a timely manner was a performance deficiency. The performance deficiency was more than minor because it was associated with the

protection from external events 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. Specifically, the licensee failed to verify through calculations or analysis that the actions taken to secure flood doors could be completed in time to protect safety-related equipment from flooding due to a levee failure. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," the issue was determined to affect the Mitigating Systems Cornerstone. In accordance with NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings at Power", the issue was determined to have very low safety significance (Green) because it did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather initiating event. Specifically, the inspectors confirmed that the licensee could reasonably ensure the flood control doors could perform their safety function. This finding had a cross-cutting aspect in the human performance area, resources component in that the licensee failed to maintain long term plant safety by maintenance of design margins and ensuring engineering backlogs low enough to support safety [H.2(a)].

Inspection Report# : [2012008](#) (*pdf*)

Barrier Integrity

Significance: N/A Jun 30, 2013

Identified By: NRC

Item Type: VIO Violation

Failure to Update Fuel Handling Accident Analysis in the Updated Final Safety Analysis Report

The inspectors identified a Severity Level IV non-cited violation for the licensee's failure to update the final (updated) safety analysis report in accordance with 10 CFR 50.71(e). Specifically, from July 1981 to April 18, 2013, the licensee failed to update the methodology, the data input, and the resulting limits for the fuel bundle drop accident analysis in the Waterford Steam Electric Station, Unit 3, Updated Final Safety Analysis Report, Section 15.7.3.4, "Design Basis Fuel Handling Accidents." This violation was entered into the licensee's corrective action program as Condition Report CR-WF3-2013-0193.

The failure to update the methodology, the data input to the calculation, and the resulting limits for the fuel bundle drop accident analysis in Section 15.7.3.4 of the Updated Final Safety Analysis Report in accordance with 10 CFR 50.71(e) is a performance deficiency. This performance deficiency was evaluated using traditional enforcement because it has the potential to impact the NRC's ability to perform its regulatory function. The inspectors used the NRC Enforcement Policy to evaluate the significance of this violation. Consistent with the NRC Enforcement Policy, the inspectors determined that the performance deficiency is a Severity Level IV non-cited violation. This non-cited violation had no cross-cutting aspect because there was no finding associated with this traditional enforcement violation.

Inspection Report# : [2013003](#) (*pdf*)

Significance:  Jun 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to comply with Action 4 of TS 3.3.1 during shutdown with the protective system trip breakers in the open position for Modes 4 and 5

The inspectors identified a non-cited violation of Waterford Steam Electric Station, Unit 3, Technical Specification (TS) Limiting Condition of Operation (LCO) 3.3.1 because the licensee did not take action to suspend operations that

involved reactivity changes use to accomplish startup activities with only one excore nuclear instrumentation (ENI) logarithmic (log) channel operable. Specifically, the licensee did not take action to suspend operations involving diluted water additions to the volume control tank and temperature increases with a positive moderator temperature coefficient (MTC) without the required number of operable log channels. As a result, the licensee did not comply with Action 4 of TS LCO 3.3.1 because they did not account for temperature increases with a positive MTC within the shutdown margin calculation. This had the potential to affect the available shutdown margin. The licensee entered this issue into their corrective action program as CR-WF3-2013-2166 and CR-WF3-2013-3182. The immediate corrective actions taken to restore compliance included the discontinued use of water additions to the volume control tank and the increase of RCS temperatures with a positive MTC until the licensee's personnel returned an additional log channel to service.

The failure to comply with TS LCO 3.3.1, Action 4, was a performance deficiency. The performance deficiency was 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 physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the LCO for the log power channels ensures that adequate information is available to verify core reactivity conditions while shutdown to minimize the probability of the occurrence of postulated events. The inspectors used Checklist 4 contained in Attachment 1 of the NRC Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists," to evaluate this finding. The inspectors determined that the finding did not meet the reactivity guidelines because the licensee did not comply with TS LCO 3.3.1, Action 4. The inspectors determined that the finding was of very low safety significance (Green) because it did not require a quantitative assessment and was not similar to any of the examples requiring a phase two or phase three analyses. The inspectors also determined that the licensee maintain the required shutdown margin to preclude inadvertent criticality in the shutdown condition. The inspectors concluded that the finding reflected current licensee performance and involved a cross-cutting aspect in the decision-making component of the human performance area in that the licensee did not make a safety-significant decision using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety was maintained. This included obtaining interdisciplinary input and reviews on safety-significant decisions [H.1.a].

Inspection Report# : [2013003](#) (*pdf*)

Emergency Preparedness

Significance:  Dec 06, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Critique Weaknesses During an Evaluated Exercise

The inspectors identified a non-cited violation of 10 CFR Part 50.47(b)(14) for the failure to identify deficiencies resulting from the licensee's 2013 biennial evaluated exercise. Specifically, the licensee did not identify as part of the critique process two examples of failure to provide a range of protective actions for emergency workers. First, actions were not taken to minimize radiological dose for one in-plant repair team; second, the licensee did not perform habitability evaluations to determine the suitability for continued use of emergency response facilities during the simulated radiological emergency.

The failure to identify weaknesses occurring in an exercise is a performance deficiency. The performance deficiency is more than minor because it is associated with the ERO performance attribute of the emergency preparedness

cornerstone and it adversely impacted the 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. In addition, if left uncorrected, continuing these behaviors could result in unnecessary radiological dose to emergency workers and the public in an actual event. Using NRC Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process (SDP)," the finding was determined to have very low safety significance (Green). The finding had a cross-cutting aspect in the correction action program component of the problem identification and resolution cross-cutting area because the licensee failed to thoroughly evaluate two issues during the exercise critique process.

Inspection Report# : [2013005](#) (*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 Sep 30, 2013

Identified By: NRC

Item Type: VIO Violation

Failure to Make a Report Required by 10 CFR 21.21

The team identified a violation of 10 CFR 21.21 that occurred when the licensee failed to submit a report or interim report on a deviation in a basic component within 60 days of discovery.

The failure of the licensee to adequately evaluate deviations in basic components and to report defects is a performance deficiency. The NRC's significance determination process (SDP) considers the safety significance of findings by evaluating their potential safety consequences. This performance deficiency was of minor safety significance. The traditional enforcement process separately considers the significance of willful violations, violations that impact the regulatory process, and violations that result in actual safety consequences. Traditional enforcement applied to this finding because it involved a violation that impacted the regulatory process. Supplement VII to the version of the NRC Enforcement Policy that was in effect at the time the violation was identified provided as an example of a violation of significant regulatory concern (Severity Level III), "An inadequate review or failure to review such that, if an appropriate review had been made as required, a 10 CFR Part 21 report would have been

made.” Based on this example, the NRC determined that the violation met the criteria to be cited as a Severity Level III violation. However, because of the circumstances surrounding the violation, including the removal from service of the affected components by an unrelated manufacturer’s recall, the severity of the cited violation is being reduced to Severity Level IV. Cross-cutting aspects are not assigned to traditional enforcement violations.

Inspection Report# : [2013004](#) (*pdf*)

Last modified : May 30, 2014