Fermi 2
3Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Control Combustible Materials
The inspectors identified a finding of very low safety significance with an associated NCV of Technical Specification (TS) 5.4, "Procedures." During fire protection walkdowns in safety-related and risk-significant areas of the plant, the inspectors identified multiple instances of the licensee's failure to implement procedural requirements for implementing its fire protection program as required by TS 5.4.1.d, specifically for the controls of combustible materials. The licensee entered this violation into its corrective action program for evaluation and identification of appropriate corrective actions. As immediate corrective actions, the licensee rectified all of the inspector-identified issues, performed walkdowns inspecting all fire storage cabinets in the plant, and directed individual departments to examine all other storage cabinets for combustible materials. Any additional discrepancies found during these walkdowns were promptly corrected.
The finding was of more than minor safety significance because it was related to the Initiating Events Cornerstone attribute of Protection Against External Factors (Fire) and adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during plant operations. Specifically, the failure to properly control combustible materials in safety-related and risk-significant plant areas could increase the likelihood of a fire in these areas causing a plant transient and/or affecting plant equipment. The finding was determined to be a licensee performance deficiency of very low safety significance since redundant safe shutdown systems would have remained available during a postulated fire scenario in the affected locations. The inspectors concluded this finding affected the cross-cutting area of human performance and the cross-cutting aspect of avoid complacency. The licensee's failure to follow its fire protection program implementing procedure requirements involved several work groups and had existed for a sufficient period of time, such that individuals were accustomed to and accepted the discrepancies between what was required by the licensee's fire protection program and the actual condition of materials in the plant.

Inspection Report# : 2016002 *(pdf)*

Significance: G Jun 30, 2016
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Use Correct Material in a Feedwater Heater Level Control Valve Resulted in a Loss of Feedwater Heater Drains and a Reactor Recirculation System Runback
A finding of very low safety significance was self-revealed when a reactor recirculation system runback occurred during power ascension due to a loss of feedwater heater drains caused by a feedwater heater level control valve malfunction. The control valve malfunction occurred because the licensee had failed to use correct material in the component during maintenance in October 2010. No violation of regulatory requirements was identified because the feedwater heating system is not safety-related and the applicable maintenance procedures were not covered under 10 CFR Part 50, Appendix B.
The finding was of more than minor safety significance because it was related to the Equipment Performance attribute

of the Initiating Events Cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the control valve malfunction resulted in a reactor recirculation system runback. In addition, the finding was sufficiently similar to IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," Examples 4(b) and 4(f), to conclude it was not of minor significance because there was an adverse safety impact (i.e., a plant transient) due to the licensee's failure to meet its technical requirements. The finding was determined to be a licensee performance deficiency of very low safety significance because it did not cause a reactor scram. The inspectors concluded that because the error occurred greater than three years ago, this issue would not be reflective of current licensee performance and no cross-cutting aspect was identified.
Inspection Report# : 2016002 *(pdf)*

Significance: G Mar 31, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure of the Plant-Referenced Simulator to Demonstrate Expected Plant Response for Safety Relief Valves
A finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 55.46(c), "Plant-Referenced Simulators," was self-revealed. The licensee failed to ensure the plant-referenced simulator demonstrated expected plant response to normal, transient, and accident conditions to which the simulator was designed to respond. Specifically, the licensee failed to maintain the simulator consistent with actual plant response when using the safety relief valves for reactor pressure control after a reactor scram. The licensee entered this issue into the corrective action program. To restore compliance, the licensee modified the simulator model to more accurately emulate actual reactor pressure vessel (RPV) water level response during manual control of reactor pressure using safety relief valves.

The performance deficiency was of more than minor safety significance because it adversely affected the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the simulator provided unrealistic or negative training to licensed operators due to inaccurate modeling of the RPV level response during manual control of reactor pressure using safety relief valves as compared to the actual plant response. Although the simulator provided unrealistic or negative training to licensed operators, the inspectors concluded the unrealistic simulator training did not negatively impact licensed operator performance during the event since operators had successfully demonstrated manual control of RPV level and pressure for greater than 12 hours. Therefore, the finding was determined to be of very low safety significance. The inspectors concluded that because the discrepancy between the simulator and the plant existed since simulator use began (i.e., greater than three years ago), this issue would not be reflective of current licensee performance and no cross-cutting aspect was identified.

Inspection Report# : 2016001 *(pdf)*

Significance: G Mar 31, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Incorporate Operating Experience into Preventive Maintenance Activities Associated with the TBCCW System
A finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," was self-revealed when the failure of a tube inside the east turbine building closed cooling water (TBCCW) heat exchanger caused a trip of the TBCCW pumps and a manual reactor scram due to the loss of all TBCCW. The heat exchanger tube failure occurred, in part, due to the licensee's failure to incorporate industry operating experience in order to perform adequate preventive maintenance on the component. The licensee entered this issue into the corrective action program and inspected all

tubes in both TBCCW heat exchangers using a rotating pancake coil eddy current test during the Cycle 17 refueling outage. Any tubes identified with indications of stress corrosion cracking (SCC) were either plugged or replaced.

The performance deficiency was of more than minor safety significance because it was associated with the equipment performance attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the TBCCW heat exchanger tube failure resulted in a loss of all TBCCW and a reactor scram. In addition, the inspectors found this issue sufficiently similar to Example 7(c) in IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," for not of minor safety significance. The finding was determined to be a performance deficiency of very low safety significance based on a detailed significance determination process review since the delta core damage frequency was determined to be less than 1.0E-6/year. The inspectors concluded this finding affected the cross-cutting aspect of trending in the problem identification and resolution area. Specifically, the licensee failed to analyze operating experiences concerning circumferential SCC information in the corrective action program and other assessments in the aggregate to identify programmatic and common cause issues.

Inspection Report# : 2016001 *(pdf)*

Significance: G Mar 31, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Inadvertent Reactor Water Low Level Reactor Protection System Actuation Due to Operator Error
A finding of very low safety significance with an associated Non-Cited Violation of Technical Specification 5.4, “Procedures,” was self-revealed when a valid automatic reactor scram signal and isolation signal for multiple primary containment isolation valves was actuated. A reactor operator, who was maintaining reactor pressure vessel (RPV) water level and reactor pressure following a plant scram, did not initiate reactor core isolation cooling (RCIC) system flow in time to maintain level above the Level 3 reactor protection system actuation setpoint. As an immediate corrective action, control room operators promptly restored RPV level by manual operation of the RCIC system. The licensee entered this issue into the corrective action program and provided remedial training for the reactor operator in the simulator, communicated lessons learned from this event with other licensed operators, and subsequently implemented improvements for licensed operator training and procedure changes to incorporate a revised strategy for manual control of RPV level and pressure control with main steam line isolation valves closed.

The performance deficiency was of more than minor safety significance because it was associated with the Human Performance attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the human performance error unnecessarily challenged a plant protection feature, which resulted in a valid automatic reactor scram signal and isolation signal for multiple primary containment isolation valves. In addition, the finding was sufficiently similar to Example 4(b) in IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," to conclude the issue was minor safety significance since the error resulted in a valid automatic reactor scram signal and isolation signal for multiple primary containment isolation valves. The finding was determined to be of very low safety significance since it did not cause a reactor scram and a loss of mitigation equipment relied upon to transition the plant to a stable shutdown condition (e.g., loss of condenser, loss of feedwater). The inspectors concluded this finding affected the cross-cutting aspect of resources in the human performance area. Specifically, the licensee’s evaluation identified the reactor operator had been performing a complicated task for a long period of time without adequate rest/recovery periods.

Inspection Report# : 2016001 *(pdf)*

Significance: G Dec 31, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Satisfy Technical Specification Requirements During an Unplanned Operation with the Potential to Drain the Reactor Vessel
A finding of very low safety significance with an associated Non-Cited Violation of Technical Specification (TS) 3.0.4 was self-revealed on October 4, 2015, when the licensee inadvertently entered an operation with the potential to drain the reactor vessel (OPDRV) condition while in Mode 5 (refueling) without an operable secondary containment. The licensee failed to provide adequate configuration control of reactor recirculation system boundary isolation valves while establishing conditions to support maintenance during the Cycle 17 refueling outage. As an immediate corrective action, the licensee terminated the OPDRV and restored compliance with the TS by closing recirculation pump seal cavity drain valves to isolate the drain path. In addition, the licensee reviewed all remaining refueling outage system tag outs that interfaced with the reactor vessel to ensure appropriate configuration controls were established to prevent impacting reactor vessel water level, initiated actions to make procedure changes to improve its processes for review of system tag outs for conditions that drain systems that interface with the reactor vessel, and communicated lessons learned from this event with plant operators.

The finding was of more than minor safety significance because it was associated with the Configuration Control and Human Performance attributes of the Initiating Events Cornerstone and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown, as well as power operations. Specifically, the system tag out error resulted in an inadvertent and uncontrolled loss of reactor coolant system inventory. The finding was determined to be a licensee performance deficiency of very low safety significance during a detailed Significance Determination Process review since the delta core damage frequency was determined to be less than 1.0E-7/year. The inspectors concluded this finding affected the cross cutting area of human performance and the cross-cutting aspect of avoiding complacency. The cause of the event was primarily attributed to a failure to properly use human error reduction techniques, specifically inadequate self-checking by the operators who prepared and reviewed the system tag out configuration for the maintenance, as well as inadequate identification of OPDRV conditions during refueling outage preparations.
Inspection Report# : 2015004 *(pdf)*

Significance: G Dec 18, 2015
Identified By: NRC
Item Type: FIN Finding
Failure to Comply with ASME B30.16 for Planned Engineered Lifts
The inspectors identified a finding of very low safety significance for the licensee's failure to meet American Society of Mechanical Engineers (ASME) Code requirements to perform planned engineering lifts of loads that exceeded a hoist's rated capacity. Specifically, on September 25 and September 26, 2013, the licensee used the Unit 2 turbine building reactor feed pump monorail hoist to perform multiple lifts of floor plugs. The weight of the floor plugs exceeded the rated capacity of the hoist and the licensee did not follow the requirements of ASME Code B30.16, Section 16-3.4, "Planned Engineered Lifts," for lifts in excess of the rated load. These requirements include, in part, inspections, calculations, test lifts, distances traveled, and record keeping and retention. The Code also limits the number of lifts to two within any continuous 12-month period without meeting additional requirements. The licensee captured this issue in their CAP as Condition Assessment Resolution Document (CARD) 15-30077. No violation of regulatory requirements was identified.

The performance deficiency was of more than minor safety significance because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, if the hoist failed, and a heavy object were to fall through the turbine building hatch opening, it could cause a loss of condenser vacuum and subsequent plant trip or possibly a steam leak into the turbine building. The finding was of very low safety significance because it did not

cause a reactor trip. The inspectors determined this finding affected the cross-cutting aspect of problem identification and resolution, evaluation (P.2) due to the failure of the organization to thoroughly evaluate issues to ensure resolutions address causes and extend of condition commensurate with their safety significance. Specifically, the licensee failed to evaluate thoroughly the causes for not complying with ASME Code requirements once a lift exceeded a hoist's rated capacity had occurred. Therefore, effective corrective actions and an extent of condition were not identified.
Inspection Report# : 2015007 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Perform an Operability Determination for Division 1 RPV Reference Leg Backfill System Not Providing Adequate Flow
The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to complete an operability determination as required by plant procedures. Specifically, the licensee failed to perform an operability determination for a degraded/non-conforming condition described in CARD 16-25608, "Division 1 RPV [Reactor Pressure Vessel] Reference Leg Backfill System Not Meeting Minimum Recommended Flow," to assess the impact on affected RPV level and pressure instrumentation when the minimum reference leg backfill flow rate could not be maintained. The licensee entered this violation into its corrective action program for evaluation and identification of appropriate corrective actions. An operability determination was subsequently documented in CARD 16 25608.
The finding was of more than minor safety significance because it was related to 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 perform an operability determination for the degraded/non-conforming condition could potentially have led to inoperable RPV level and pressure instruments without the licensee's knowledge. In this case, during an event involving a rapid depressurization of the RPV, the affected instruments may cause later than expected initiation of the required automatic actuation signals for the reactor protection and emergency core cooling systems and may provide operators with erroneous indications. The finding was determined to be of very low safety significance because it did not represent an actual loss of function of a single train for greater than its Technical Specification (TS) allowed outage time nor did it represent a loss of function of a non-TS train designated as high safety significant in accordance with the licensee's Maintenance Rule Program. The inspectors determined this finding affected the cross-cutting area of problem identification and resolution and the cross-cutting aspect of evaluation. The licensee did not thoroughly evaluate the problem after it was identified with respect to the effect the degraded/non-conforming condition would have on operability of the RPV level and pressure instruments commensurate with their safety significance.
Inspection Report# : 2016003 *(pdf)*

Significance: G Sep 30, 2016
Identified By: NRC
Item Type: FIN Finding
Failure to Follow Procedures During Concrete Placement of Flexible Storage Facility Buildings
The inspectors identified a finding of very low safety significance when licensee personnel failed to follow the applicable procedure and design specification during concrete placement for installation of Diverse and Flexible

Coping Strategies (FLEX) Buildings 1 and 2, identified as Flexible Storage Facility Buildings (FSF-1 and FSF-2). Specifically, the licensee failed to meet the requirements for limiting concrete pour heights and for treatment at cold joints. No violation of regulatory requirements was identified because construction of the FSF Buildings was not covered under 10 CFR 50, Appendix B.
The finding was of more than minor safety significance 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 (i.e., core damage). Specifically, the licensee failed to follow the instructions provided in the design specification and the plant procedure for concrete placement leading to potential degradation of the FSF Building walls required for protection of the components needed for implementation of the FLEX in response to NRC Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events." In accordance with the NRC staff guidance for disposition of findings associated with NRC Order EA 12 049, the finding was presented to a cross-regional panel, which determined the finding to be a licensee performance deficiency of very low safety significance based on a qualitative evaluation of the potential consequences of the issue. The inspectors concluded this finding affected the cross-cutting area of human performance and the cross-cutting aspect of procedure adherence because licensee personnel failed to review and follow the applicable procedures and instructions while performing concrete placement work.
Inspection Report# : 2016003 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Procedure for Addressing Non Functional MDCT Fan Motor Brake System (Section 1R21.3.b(1))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee failure to establish procedures that were appropriate for addressing non-functional mechanical draft cooling tower (MDCT) fan motor brakes. Specifically, a license procedure contained instructions for addressing the impact of non-functional MDCT fan motor brakes to the ultimate heat sink operability that were inconsistent with the applicable Technical Specification requirements. The licensee captured this issue in their Corrective Action Program (CAP) as CARD 16-26762, verified that all MDCT fan brake systems were functional, revised the affected procedure to restore compliance, and issued a night order to notify control room licensed nuclear operators of the revised procedure.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of protection against external events and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not involve the loss or degradation of equipment or function specifically designed to mitigate a tornado event. Specifically, a historic review for the last 12 months revealed that the minimum required number of MDCT fans remained operable to mitigate the consequences of a tornado. The team did not identify a cross cutting aspect associated with this finding because it was not confirmed to reflect current performance due to the age of the performance deficiency. Specifically, the procedure instructions for addressing MDCT fan motor brake non-functionality were developed more than 3 years ago. (Section 1R21.3.b(1))

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Verify the Adequacy of the Voltage Supplied to Transformer #64 Load Tap Changer (Section

1R21.3.b(2))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to verify the adequacy of the voltage supplied to the transformer #64 load tap changer. Specifically, the licensee did not perform calculations to verify that the load tap changer controls and actuator would have adequate voltage to be able to reset the degraded voltage relays following a design basis accident (DBA). The licensee captured this issue in their CAP as CARD 16-26702 and performed an operability evaluation that reasonably determined the voltage would marginally be acceptable to operate the load tap changer controls and actuator.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed an operability evaluation that reasonably showed voltage would be marginally acceptable to operate the load tap changer controls and actuator when required during a DBA. The team determined that the associated finding had a cross-cutting aspect in the area of Problem Identification and Resolution because the licensee did not conduct a self critical and objective assessment of its programs and practices. Specifically, the licensee reviewed the applicability of a similar violation issued to a different licensee during the 2015 Component Design Bases Inspection Self-Assessment and concluded that it did not apply to Fermi. (Section 1R21.3.b(2)) [P.6]

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Verify the Ability to Manually Throttle Safety-Related MOVs during a DBA (Section 1R21.3.b(3))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to verify the capability to manually throttle safety-related motor-operated valves (MOVs) during a DBA. Specifically, the licensee did not verify that the protective devices would allow manually throttling safety-related MOVs during a DBA without tripping. The licensee captured this issue in their CAP as CARD 16-26763, performed a preliminary protective device evaluation to reasonably determine the maximum number of throttling cycles each MOV can incur without tripping the associated thermal overload, and incorporated these limits into an operations night order.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed informal analyses to evaluate the installed protective devices for the throttling MOVs and reasonably determined that tripping would not occur. The team determined that the associated finding had a cross-cutting aspect in the area of Human Performance because work groups did not communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained. Specifically, the engineers that performed the affected calculation, which was approved on December 2013, did not communicate and coordinate with operations or the MOV engineer to determine if the plant had throttling MOVs that required additional analysis. (Section 1R21.3.b(3)) [H.4]

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC

Item Type: NCV Non-Cited Violation
Failure to Periodically Test the EDG Capability to Start and Accelerate All of the Sequenced Loads Within the Applicable Limits (Section 1R21.3.b(4))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," for the failure to periodically test the emergency diesel generator (EDG) capacity to start and accelerate all of the sequenced loads within the applicable limits. Specifically, surveillance requirement (SR) activities did not demonstrate that all of the EDG auto sequenced loads started and accelerated within the applicable voltage and frequency limits during start-up and recovery. In addition, the licensee did not timely evaluate the surveillance data collected for the residual heat removal pump motors. The licensee captured this issue in their CAP as CARD 16-26535 and CARD 16 26536, and performed an operability evaluation which reasonably determined the affected systems, structures, and components (SSCs) were operable but nonconforming.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee evaluated the most recent data and reasonably determined that the EDGs and the affected loads were operable. The team did not identify a cross cutting aspect associated with this finding because it was not confirmed to reflect current performance due to the age of the performance deficiency. Specifically, the associated SR procedures were established more than 3 years ago. (Section 1R21.3.b(4))

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Leak Test All Division 2 NIAS Boundary Isolation Valves (Section 1R21.3.b(5))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," for the licensee's failure to leak test all Division 2 non-interruptible control air system (NIAS) boundary isolation valves. Specifically, the periodic NIAS leak testing did not account for the potential leakage of two valves used to isolate the NIAS safety-related system from the nonsafety related interruptible control air system. The licensee captured this issue in their CAP as CARD 16-26389 and performed an operability evaluation which reasonably determined that Division 2 of NIAS remained functional.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. In addition, it was associated with the Barrier Integrity cornerstone attribute of SSC and barrier performance and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The finding screened as of very low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee used available data from a recent event and reasonably determined that system out leakage was within the design limit. In addition, with respect to the Barrier Integrity cornerstone, the finding only represented a potential degradation of the control room and standby gas ventilation systems. The team did not identify a cross-cutting aspect associated with this finding because it was not confirmed to reflect current performance due to the age of the performance deficiency. Specifically, the test procedures were established more than 3 years ago. (Section 1R21.3.b(5))

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Ensure that Protective Devices for the Loads Required at the Beginning of a LOCA Would Not Trip Under Degraded Voltage Conditions (Section 1R21.4.b(1))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to ensure that the protective devices for the loads required at the beginning of a loss of coolant accident (LOCA) would not trip under degraded voltage conditions. Specifically, the licensee did not verify that the connected Class 1E loads would not be damaged or become unavailable during a LOCA concurrent with a degraded voltage condition between the degraded voltage dropout setting and the loss of voltage setting for the degraded voltage time delay of 7.3 seconds and subsequent reconnection to the EDG. The licensee captured this issue in their CAP as CARD 16-26533 and performed a preliminary evaluation that reasonably determined the protective devices would not actuate during this condition.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed an operability evaluation and reasonably determined that protective devices would not actuate during a degraded voltage concurrent with a LOCA. The team determined that the associated finding had a cross-cutting aspect in the area of Problem Identification and Resolution because the licensee did not conduct a self-critical and objective assessment of its programs and practices. Specifically, the licensee evaluated a similar violation issued at a different licensee during the 2016 Component Design Bases Inspection Self-Assessment and concluded that no corrective actions were required. (Section 1R21.4.b (1)) [P.6]

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Containment Debris Inspections Acceptance Criteria (Section 1R21.4.b(2))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to establish procedures that were appropriate to inspect containment debris. Specifically, the emergency core cooling system (ECCS) suction strainer and containment coating inspection procedures contained acceptance criteria that was inconsistent with the applicable design documents. The licensee captured this issue in their CAP as CARD 16 26128 and CARD 16 26585, and reasonably determined that the concern did not impact the affected SSCs functionality based on recent inspection results.
The performance deficiency was determined to be more-than-minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as of very low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, a review of recent inspection did not find a condition that reasonably challenged the applicable design analysis and all loose material identified during the inspections was removed. The team did not identify a cross-cutting aspect associated with this finding because it was not confirmed to reflect current performance due to the age of the performance deficiency. Specifically, the affected procedures were established more than 3 years ago. (Section 1R21.4.b(2))

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Evaluate the Acceptability of Drywell Coatings with Respect to Potential ECCS Suction Strainer Blockage (Section 1R21.4.b(3))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to evaluate the acceptability of drywell coatings with respect to potential ECCS suction strainer blockage. Specifically, the licensee had not ensured that coating Carbo Zinc 11 would remain attached to the base metal during a DBA and the ECCS suction strainer calculations did not account for this material as a potential source of debris blockage. The licensee captured this issue in their CAP as CARD 16 26581 and reasonably determined that the affected coating system would remain adhered during a LOCA by comparing Carbo Zinc 11 installation documents against DBA test reports for this coating.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee compared Carbo Zinc 11 installation documents against DBA test reports for this coating and reasonably concluded that this coating system would remain adhered in the event of a LOCA. The team did not identify a cross-cutting aspect associated with this finding because it was not confirmed to reflect current performance due to the age of the performance deficiency. Specifically, the associated evaluations were performed more than 3 years ago. (Section 1R21.4.b(3))

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Non Conservative ECCS Suction Strainer Min-K Combined Generation and Transport Factors (Section 1R21.4.b(4))
Green. The team identified a finding of very-low safety significance (Green), and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to use the min-K insulation debris generation and transport factors contained in the ECCS suction strainer licensing basis. Specifically, the licensee used non-conservative min-K insulation debris generation and transport factor values. The licensee captured this issue in their CAP as CARD 16-26800 and performed an operability evaluation that reasonably determined, based on industry test data, the existing calculation had sufficient conservatism to accommodate the effects of the additional debris volume.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed an operability evaluation and reasonably determined that the existing calculation had sufficient conservatism to accommodate the effects of the additional debris volume. The team did not identify a cross-cutting aspect associated with this finding because it was not confirmed to reflect current performance due to the age of the performance deficiency. Specifically, the associated evaluations were performed more than 3 years ago. (Section 1R21.4.b(4))

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Apply Design Control Measures to a Design Change Associated with NIAS Accumulator Capability (Section 1R21.5.b(1))
Green: The team identified a finding of very low safety significance (Green), and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to apply design control measures to a design change associated with NIAS accumulator capacity. Specifically, the licensee did not verify that the reduced accumulator capacity was adequate during the entire time period that the compressor is expected to not be running, and ensure that operability limits and calibration tolerances contained in procedures were consistent with the new design. The licensee captured this issue in their CAP as CARD 16-26208, CARD 16-26561, and CARD 16-26607, and reasonably concluded that NIAS remained functional.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. In addition, it was associated with the Barrier Integrity cornerstone attribute of SSC and barrier performance and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The finding screened as of very low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed a bounding assessment that reasonably determined that the accumulator would maintain adequate pneumatic supply. In addition, with respect to the Barrier Integrity cornerstone, the finding only represented a potential degradation of the control room and standby gas ventilation systems. The team determined that the associated finding had a cross cutting aspect in the area of Human Performance because the licensee did not carefully guarded margins and changed them only through a systematic and rigorous process. Specifically, the licensee failed to review and identify all of the design attributes associated with NIAS system before significantly reducing the accumulator capacity design margin in February 2016. (Section 1R21.5.b(1)) [H.6]

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify an Out-of-Specification Pressure Reading on the Nitrogen Supply to the "A" MDCT Fan Motor Brake System (Section 4OA2.1.b(1))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify that the 'A' MDCT fan motor brake system 100 psi nitrogen supply cylinder pressure did not meet the low-pressure acceptance criterion. Specifically, although the license had discovered this condition adverse to quality (CAQ), it was not captured into the CAP and was not corrected for a period of 7 consecutive days following its discovery. The licensee captured this issue in their CAP as CARD 16-26214, verified that the pressure of all MCDT fan motor brake cylinders were within limits, evaluated past operability, and performed a causal investigation.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of protection against external events and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not involve the loss or degradation of equipment or function specifically designed to mitigate a tornado event. Specifically, the licensee reviewed the pressure readings of the other nitrogen system supply cylinders and reasonably determined that their available pressure at the time would have compensated for the 100 psi cylinder low-pressure. The team determined that the associated finding had a cross-cutting aspect in the area of Human Performance because work groups did not

communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained. Specifically, the nuclear operators and the control room licensed nuclear operators did not communicate and coordinate their activities to ensure the degraded condition was captured in the CAP. (Section 4OA2.1.b(1)) [H.4]

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify a CAQ Associated with Over-Dutied 480V Safety-Related Switchgear Breakers (Section 4OA2.1.b(2))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify that over-dutied 480V safety-related switchgear breakers were nonconforming to the licensing basis. Specifically, the licensee did not identify that this condition was nonconforming to the licensing basis and, as a result, did not promptly correct the CAQ. The licensee captured this issue in their CAP as CARD 16-26209 and CARD 16-26210, and performed an operability evaluation that reasonably determined the affected buses were operable but nonconforming.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed an operability evaluation and reasonably concluded that the associated buses remained operable. The team determined that the associated finding had a cross cutting aspect in the area of Problem Identification and Resolution because the licensee did not thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, the licensee failed to recognize that the condition was nonconforming to the licensing basis because they did not thoroughly evaluate the discovery of the over-dutied breakers and extent of condition. (Section 4OA2.1.b(2)) [P.2]

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify that a Non-Conservative Min-K Insulation Volume Calculation Error Was Nonconforming to the ECCS Suction Strainer Licensing Basis (Section 4OA2.1.b(4))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify that a non-conservative min-K insulation volume calculation error was nonconforming to the ECCS suction strainer licensing basis. Specifically, the licensee identified the non-conservative calculation error and captured it in the CAP as CARD 11-21153. However, the licensee did not identify any regulatory basis requiring this condition to be addressed and, as a result, closed the CARD without correcting the CAQ. The licensee captured this issue in their CAP as CARD 16-26292 and CARD 16-26800, and performed an engineering functional assessment that reasonably determined the affected SSCs remained operable.
The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of

operability or functionality of mitigating systems. Specifically, the licensee performed an operability evaluation and reasonably determined the affected SSCs remained operable. The team determined that this finding had a cross cutting aspect in the area of Human Performance because the licensee did not propose an action that was determined to be safe in order to proceed, rather than unsafe in order to stop. Specifically, the licensee determined that no regulatory basis was associated with the non-conservative error because they could not find any requirement that specifically described the physical configuration and condition addressed in CARD 11-21153 when evaluating the problem in 2015. (Section 4OA2.1.b(4)) [H.14]

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Timely Identify, Document, and Evaluate Conditions that Challenge Operability (Section 4OA2.1.b (5))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to timely identify, document, and evaluate nonconforming conditions that called the operability of one or more SSCs into question. Specifically, the licensee was not timely in capturing and evaluating ten CAQs identified during this inspection in their CAP and in accordance with their procedures, which resulted in untimely operability determinations. The licensee captured this issue in their CAP as CARD 16-26633, CARD 16 26776, CARD 16-26534, and CARD 16-26678, and completed the associated operability determinations, which reasonably determined the affected SSCs remained operable.
The performance deficiency was determined to be more-than-minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed operability evaluations that reasonably determined that all of the affected SSCs remained operable. The team determined that this finding had a cross cutting aspect in the area of Human Performance because the licensee did not use a consistent, systematic approach to make decisions. Specifically, the licensee did not use the CAP's systematic process to identify CAQs and make timely and adequate prompt operability decisions. (Section 4OA2.1.b (5)) [H.13]

Inspection Report# : 2016007 *(pdf)*

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Test Procedure Used for Measuring and Determining Average Silt Levels in the Service Water Reservoir
The inspectors identified a finding of very-low safety significance with an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to have a procedure that prescribed instructions to determine the average silt level in the residual heat removal (RHR) reservoir to ensure the stand alone document ensures silt levels in the reservoir are maintained below the proceduralized limit of 3 inches. Specifically, in 2014 and 2015, the licensee failed to include the documented reservoir surveys or a method to determine the average silt levels in the RHR reservoir. After discussing the issue with the responsible site staff for the 2014 inspection, the licensee was able to locate the reservoir survey map outside of the quality records system; the records for 2015 were not provided. The licensee entered this issue into its corrective action program, verified that additional margin existed, and confirmed the reservoirs were still able to maintain their required design volume with the silt accumulation.
The performance deficiency was determined to be more-than-minor because if left uncorrected it would have the

potential to lead to a more significant safety concern. Specifically, since licensee procedures failed to prescribe instructions for silt depth determination, and failed to prescribe how responsible site staff determines an average reservoir silt level based on diver inspection reports, both quality related activities, the potential exists for an unacceptable condition to go unnoticed, affecting service water systems operability. The finding was of very-low safety significance because the finding did not represent a loss of system operability and/or function. The inspectors did not assign a cross-cutting aspect because the finding was not indicative of current performance.
Inspection Report# : 2016002 *(pdf)*

Significance: G Jun 30, 2016
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Implement Adequate Preventive Maintenance on Spare Terminals in Safety-Related Motor Control Centers
A finding of very low safety significance with an associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when the Division 1 low pressure coolant injection (LPCI) outboard injection motor-operated valve failed to open during surveillance testing. The licensee failed to have preventive maintenance work instructions and procedures for safety-related motor control center (MCC) inspections appropriate to the circumstances, such that appropriate steps were incorporated to ensure spare terminal screws were maintained tight. The licensee entered this violation into its corrective action program for evaluation and identification of appropriate corrective actions. Corrective actions for the event included revising preventive maintenance work instructions and procedures to include instructions to check accessible spare terminal screws for tightness, personnel training, and inspection of all engineered safety feature MCC positions with relays susceptible to loose or missing screws and for susceptible contactor orientations.
The finding was of more than minor safety significance because it was related to the Equipment Reliability 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 of the Division 1 LPCI outboard isolation valve to stroke open affected the LPCI loop select logic function to respond to a design basis event. The finding was determined to be of very low safety significance based on a detailed significance determination process review since the delta core damage frequency was determined to be less than 1.0E–6/year. The inspectors concluded that because the inadequate procedures were in use for greater than three years, this issue would not be reflective of current licensee performance, and no cross-cutting aspect was identified.
Inspection Report# : 2016002 *(pdf)*

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Correctly Interpret and Implement TS Requirements for RPS Trip Functions
The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of Technical Specification (TS) 5.4, "Procedures." Specifically, the licensee failed to enter TS 3.3.1.1, Condition C when the high pressure stop valve (HPSV) closure and high pressure control valve (HPCV) fast closure reactor protection system (RPS) trip functions became inoperable while the main turbine bypass valves cycled open during a plant transient on January 6, 2016. The licensee entered this issue into the corrective action program for evaluation and identification of appropriate corrective actions. As an immediate corrective action, the licensee established an expectation to enter TS 3.3.1.1, Condition C, when the main turbine bypass valves are open above 29.5 percent power and declare the HPSV closure and HPCV fast closure RPS trip functions inoperable pending another resolution.

The performance deficiency was of more than minor safety significance because a failure to correctly implement TS Limiting Condition for Operation (LCO) requirements has the potential to lead to a more significant safety concern if

left uncorrected. Specifically, a failure to declare an LCO not met, enter the applicable condition(s), and follow the applicable actions could reasonably result in operations outside of established safety margins or analyses. The finding was determined to be of very low safety significance based on a detailed significance determination process review since the delta core damage frequency was determined to be less than 1.0E-6/year. The inspectors concluded this finding affected the cross-cutting aspect of conservative bias in the human performance area. Specifically, the licensee failed to correctly interpret and implement the TS requirements due to a non conservative interpretation of the TS Bases and a failure to reconcile differences between information in the annunciator response procedure and the TS Bases.

Inspection Report# : 2016001 *(pdf)*

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Translate Design Requirements of the RHRHVAC System into Procedures
The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion III, "Design Control." Specifically, the licensee failed to demonstrate the residual heat removal heating, ventilation, and air conditioning (RHRHVAC) system would be able to maintain a required minimum temperature of 40 degrees Fahrenheit (°F) for the emergency diesel generator (EDG) fuel oil storage tank (FOST) rooms under minimum design conditions, potentially rendering the EDGs inoperable. The licensee entered this issue into the corrective action program and revised the operator rounds procedure to record ambient air temperature readings in the EDG FOST rooms on a daily basis when the outside ambient air temperature is below 45° F.

The performance deficiency was of more than minor safety significance because a failure to correctly incorporate design requirements into plant procedures has the potential to lead to a more significant safety concern if left uncorrected. Specifically, since the EDG FOST rooms were unmonitored and a subsequent calculation demonstrated the RHRHVAC system was not able to maintain the minimum required temperature in the rooms as described in the design basis, the EDGs could have been rendered inoperable without the licensee's knowledge. The finding was determined to be of very low safety significance since it affected the design or qualification of a mitigating structure, system, or component (SSC), for which the SSC maintained its operability or functionality. The inspectors concluded that because this condition has existed for greater than three years, this issue would not be reflective of current licensee performance and no cross-cutting aspect was identified.

Inspection Report# : 2016001 *(pdf)*

Barrier Integrity

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Ensure that the MSIVs Would Close Within the TS Required Timeframe and as Described in the UFSAR (Section 1R21.3.b(6))
Green. The team identified a finding of very-low safety significance (Green), and an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to ensure that the main steam isolation valves (MSIVs) would close within the Technical Specification time requirements and with the motive forces

described in the Updated Final Safety Analysis Report. Specifically, the SR procedures did not account for the steam flow closing force, accumulator pressure variances, and containment pressure when verifying that the MSIVs will close within the SR time acceptance criteria. In addition, the licensee had not demonstrated that the MSIVs would close with air pressure and/or spring force against peak containment pressure as described in the Updated Final Safety Analysis Report. The licensee captured this issue in their CAP as CARD 16-27189 and CARD 16-26697, and performed evaluations that reasonably determined the affected MSIVs remained operable.
The performance deficiency was determined to be more-than-minor because it was associated with the Barrier Integrity cornerstone attribute of design control and affected the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. In addition, it was determined to be more-than-minor because it was associated with the Initiating Event cornerstone attribute of design control 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 finding screened as of very-low safety significance (Green) because it did not result in exceeding the reactor coolant system leak rate for a small LOCA or affected other systems used to mitigate a LOCA. In addition, it did not represent an actual open pathway in the physical integrity of reactor containment, containment isolation system, or heat removal components, and it did not involve an actual reduction in the function of hydrogen igniters in the reactor containment. The team did not identify a cross-cutting aspect associated with this finding because it was not reflective of current performance. Specifically, the most significant cause for the performance issues discussed had existed for at least 3 years. (Section 1R21.3.b(6))

Inspection Report# : 2016007 *(pdf)*

Significance: G Sep 28, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify that an Inadequate Minimum MSIV Accumulator Air Pressure Setpoint Was CAQ (Section 4OA2.1.b(3))
Green. The team identified a finding of very-low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” for the licensee’s failure to identify that an inadequate minimum MSIV accumulator air pressure setpoint was CAQ. Specifically, a licensee engineering evaluation concluded that the minimum MSIV accumulator air pressure setpoint was inadequate but the condition was not captured in the CAP and, as a result, corrective actions were not implemented. The licensee captured this issue in their CAP as CARD 16-26697 and reasonably determined the MSIVs remained operable.
The performance deficiency was determined to be more-than-minor because it was associated with the Barrier Integrity cornerstone attribute of design control and affected the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. The finding screened as of very low safety significance (Green) because the finding did not represent an actual open pathway in the physical integrity of reactor containment, containment isolation system, or heat removal components, and it did not involve an actual reduction in the function of hydrogen igniters in the reactor containment. Specifically, the finding did not result in an actual open pathway and the MSIVs do not affect the function of heat removal components and hydrogen igniters. The team did not identify a cross-cutting aspect associated with this finding because it was not confirmed to reflect current performance due to the age of the performance deficiency. Specifically, the calculation that concluded that the minimum air pressure setpoint was inadequate was performed in 1997. (Section 4OA2.1.b(3))

Inspection Report# : 2016007 *(pdf)*

Significance: G Mar 31, 2016
Identified By: NRC

Item Type: NCV Non-Cited Violation
Inadequate Test Criteria in SGTS Flow/Heater Operability Surveillance Test
The inspectors identified a finding of very low safety significance with an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criteria V, “Instructions, Procedures, and Drawings.” Specifically, the licensee failed to include appropriate quantitative or qualitative acceptance criteria in its surveillance test procedures for fulfilling the monthly Technical Specification surveillance requirement to demonstrate operability of the standby gas treatment system (SGTS). The licensee entered this violation into its corrective action program to evaluate the issue and identify appropriate corrective actions. No immediate operability concern was identified.

The performance deficiency was of more than minor safety significance because it was associated with the procedure quality attribute for the control room and auxiliary building and adversely affected the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, by not providing appropriate acceptance criteria by which the operability of the SGTS trains could be assessed, the ability of the SGTS to collect and treat the design leakage of radionuclides from the primary containment to the secondary containment during an accident could not be assured. The finding was determined to be of very low safety significance because it involved only a degradation of the radiological barrier function provided by the SGTS. The inspectors concluded that because this condition has existed for greater than three years, this issue would not be reflective of current licensee performance and no cross-cutting aspect was identified.

Inspection Report# : 2016001 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

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.

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: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Control the Work Hours of Covered Workers
The inspectors identified a finding of very low safety significance with an associated NCV of 10 CFR 26.205(c) and (d). The licensee failed to schedule and control the work hours of two maintenance craftsmen performing work covered under 10 CFR 26.4(a) by not ensuring the individuals had, at a minimum, a 34 hour break in any 9 day period as required by §26.205(d)(2)(ii). The licensee entered this violation into its corrective action program for evaluation and identification of appropriate corrective actions.
The finding was of more than minor safety significance because a failure to schedule and control the work hours of workers performing covered work, if left uncorrected, would become a more significant safety concern since it could reasonably result in human performance errors due to fatigue that could result in plant transients and/or affect the function of safety related systems or components. The finding was determined to be a licensee performance deficiency of very low safety significance based on a qualitative evaluation of the potential consequences of the performance issue since there were no human performance related incidents attributed to the two maintenance craftsmen while they were not in compliance with the work hour limits. The inspectors concluded this finding affected the cross cutting area of problem identification and resolution and the cross-cutting aspect of evaluation. The licensee did not thoroughly evaluate the problem after it was identified and reached an incorrect conclusion because it failed to sufficiently understand the regulatory requirements and the basis for its decisions that contributed to the non-compliance with the §26.205 work hour requirements.
Inspection Report# : 2016002 *(pdf)*

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: FIN Finding
Failure to Follow Apparent Cause Evaluation Procedure

The inspectors identified a finding of very low safety significance for the licensee's failure to implement its procedure standards when performing an apparent cause evaluation for a condition adverse to quality. Specifically, the inspectors determined that the licensee did not adequately develop the direct and apparent cause of the problem in the evaluation, did not correctly assess the impact of relevant internal and external operating experience, and did not identify appropriate corrective actions to address management behaviors that resulted in the problem. No violation of regulatory requirements was identified because the scope of issues evaluated by the licensee's procedure standards for performing the apparent cause evaluation was not limited to safety-related structures, systems, and components.

The performance deficiency was of more than minor safety significance because it would have the potential to lead to a more significant safety concern if left uncorrected. Specifically, the failure to adequately perform apparent cause evaluations could result in ineffective corrective actions for conditions adverse to quality and safety. The finding was determined to be of very low safety significance based on a qualitative evaluation of the potential consequences of the performance issue. The inspectors considered the three examples evaluated in the licensee's apparent cause evaluation and found the significance of each performance issue was not greater than very low safety significance. The inspectors concluded this finding affected the cross cutting aspect of evaluation in the problem identification and resolution area. The licensee did not adequately evaluate the problem to ensure corrective actions would address the causes and extent of conditions commensurate with safety significance. Specifically, the apparent cause evaluation failed to identify and understand the basis for management decisions that contributed to the problem; therefore, corrective actions to address appropriate changes in management behaviors were not developed.
Inspection Report# : 2016001 *(pdf)*

Last modified : December 08, 2016