Susquehanna 1
2Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Correct Fatigue Related Cracking of the 'B' RRP Lower Seal Cavity Vent Line
A self-revealing finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for Susquehanna's failure to establish measures to assure a condition adverse to quality was corrected. Specifically, vibration induced fatigue cracking on the Unit 1 'B' reactor recirculation pump (RRP) lower seal cavity vent piping was not corrected in December 2014 after a reactor coolant pressure boundary leak had occurred. This resulted in another reactor coolant pressure boundary leakage at the same location with Unit 1 operating in Mode 1, a condition prohibited by technical specifications (TS) LCO 3.4.4. Susquehanna's entered the issue into the corrective action program (CAP) as CR-2015-30901 and replaced and modified the union that included the weld. The finding was more than minor because it was associated with the Equipment Performance 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 shutdown as well as power operations. The inspectors evaluated the finding in accordance with Exhibit 1 of IMC 0609, Appendix A, "The significance determination process (SDP) for Findings At-Power," and determined the finding was of very low safety significance (Green) because the leakage would not have exceeded the reactor coolant system (RCS) leak rate for a small loss of coolant accident (LOCA) and it did not affect other systems used to mitigate a LOCA. This finding had a cross-cutting aspect in the area of Human Performance, Work Management, because Susquehanna did not implement a process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority, in that Susquehanna did not adequately coordinate the work activities with different groups [H.5]. Specifically, welding engineers were not engaged in the decision making process during the December 2014 repair and consequently the repair was inadequate to ensure the entire crack had been removed.
Inspection Report# : 2016001 *(pdf)*

Significance: G Dec 31, 2015
Identified By: Self-Revealing
Item Type: FIN Finding
Inadvertent Closure of the 'B' Inboard MSIV
Green. A self-revealing finding of very low safety significance (Green) was identified when Susquehanna did not correctly validate a deficient condition associated with the Unit 1 'B' inboard main steam isolation valve (MSIV) direct current (DC) solenoid valve as an actual valve issue, vice indication-only, through the use of specific acceptance criteria as required by MT-AD-509, "Control of Minor Maintenance Activities." By incorrectly concluding the issue was indication only, testing was allowed to be performed which inserted a half-isolation by de-energizing the alternating current (AC) solenoid valve on the 'B' inboard MSIV. When this maintenance was performed, the 'B' inboard MSIV closed unexpectedly, resulting in a reactor scram. The cause of the closure was the failure of the DC solenoid valve on the 'B' inboard MSIV. Susquehanna entered the issue into the CAP as CR-2015-30721 and replaced the DC solenoid for the 'B' MSIV.

The finding is more than minor because it is associated with the equipment performance attribute of the Initiating

Events cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. Specifically, the maintenance activity performed to validate the DC solenoid valve continuity was inadequate and as a result the testing was allowed to be performed which relied on DC solenoid valve continuity to prevent an MSIV closure. The inadvertent closure of the 'B' inboard MSIV resulted in a high pressure scram. The inspectors evaluated the finding in accordance with IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1, for the Initiating Events cornerstone. The inspectors determined the finding was of very low safety significance (Green) because it did not cause the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. Specifically, the condenser was maintained for decay heat removal via the bypass valves through the other three main steam lines following the trip. This finding had a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, because Susquehanna did not stop when faced uncertain conditions and instead rationalized unanticipated test results. Specifically, the investigation of the extinguished continuity monitor focused on the possibility that it was an indication-only issue and failed to question the acceptability of the current values obtained during troubleshooting.

Inspection Report# : 2015004 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Promptly Correct a Condition Adverse to Quality with 'A' EDG MOC Switch
A self-revealing finding of very low safety significance (Green) and associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for failure to correct a condition adverse to quality. Specifically, on March 23, 2016, the 'A' emergency diesel generator (EDG) failed its technical specification (TS) surveillance test in that the emergency switchgear room cooler, 1V222A, started immediately when the EDG loaded onto the emergency bus following a simulated loss of off-site power (LOOP) and simulated Emergency Core Cooling System (ECCS) Initiation, rather than sequencing onto the bus as intended by design. Susquehanna identified the direct cause of the failure was due to a misadjustment of the mechanism-operated cell (MOC) linkage switch (S1) in the 'A' EDG output breaker to the 1A 4 kilovolt (kV) bus, which provides the electrical logic to the 1V222A load timer. The repeat failure was entered into the corrective action program (CAP) as CR 2016-08643, the MOC linkage was realigned, and the functions satisfactorily tested. The finding was determined to be 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 capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the failure to correct the degraded condition rendered the 'A' EDG inoperable for longer than the TS allowed outage time. In accordance with IMC 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and Exhibit 2 of IMC 0609, Appendix A, "The SDP for Findings At-Power," dated June 19, 2012, the inspectors determined that this finding required a detailed risk assessment because the finding represents an actual loss of function of a single train for greater than the TS allowed outage time. Specifically, the 'A' EDG was inoperable from July 19, 2010 until April 2, 2016, because TS requires functioning of the sequencing timers for the EDG to be operable. In coordination with a Region 1 Senior Risk Analyst, the issue was qualitatively screened as Green (very low safety significance) based on the low initiating event frequency associated with a loss of coolant accident (LOCA) co incident with a LOOP event, and observed successful EDG function during multiple LOOP/LOCA tests over the period in question. This would result in a delta core damage frequency substantially less than E-6. Additionally, it was reasonable to conclude that the 'A' EDG remained available to perform its function given the minimal increased load on the machine as evidenced during the performance of the LOOP-LOCA surveillance testing in 2012, 2014, and 2016. This finding had a cross-cutting aspect in the area of Problem

Identification and Resolution, Evaluation, because Susquehanna did not thoroughly evaluate the issue to ensure that the resolution addressed the cause and extent of conditions commensurate with their safety significance. Specifically, Susquehanna corrected a suspected condition without appropriate troubleshooting until the third identical failure of the 1V222A load timer. [P.2]
Inspection Report# : 2016002 *(pdf)*

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure of B EDG to Reach Rated Frequency within 10 Seconds
A self-revealing finding of very low safety significance (Green) and associated NCV of TS 5.4.1.a, "Procedures," was identified when Susquehanna failed to implement procedures for loading EDGs promptly following extended unloaded operation. Specifically, Susquehanna did not load the 'B' EDG promptly following over 6 hours of unloaded operation which resulted in the slow starting time during the subsequent surveillance test due to insufficient fuel delivery caused by clogged fuel injectors. The failure was entered into the CAP as CR-2016-13220 and the EDG was run loaded for an extended period to ensure any unburned fuel had been removed from the machine. The finding was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems Cornerstone and affected the objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the failure to load the 'B' EDG following extended operation unloaded resulted in the slow starting time of the EDG during subsequent surveillance testing due to clogged fuel injectors. The inspectors evaluated the finding in accordance with Exhibit 2 of IMC 0609, Appendix A, "The SDP for Findings At-Power," dated June 19, 2012 and determined that it was of very low safety significance (Green) because it did not affect the design or qualification of the EDG, did not represent a loss of system function, and did not represent a loss of a single train for greater than its TS allowed outage time. The finding is related to the cross-cutting area of Human Performance, Consistent Process, because Susquehanna did not use a consistent, systematic approach to make decisions which incorporated risk insights. Specifically, Susquehanna did not appropriately coordinate the loaded run of the 'B' EDG with maintenance on the 'C' EDG to ensure 'B' EDG availability was not unnecessarily challenged. [H.13]
Inspection Report# : 2016002 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
RHR Shutdown Cooling Procedure Not Mainted Consistent with Technical Specification Requirements
Inspectors identified a finding of very low safety significance (Green) and associated NCV of SSES Unit 1 and 2 TS 5.4.1, "Procedures," because Susquehanna did not maintain the procedure for operation of the residual heat removal (RHR) shutdown cooling (SDC) system consistent with the requirements in TS 3.4.8, "RHR Shutdown Cooling- Hot Shutdown." As TS 3.4.8 requires two RHR SDC loops to be operable and, if no reactor recirculation pumps (RRPs) are running, one of the loops to be in-service in Mode 3 below the RHR cut in permissive pressure (98 psig), inspectors determined that OP-1(2)49-002, "RHR Shutdown Cooling," was not maintained appropriately because a change to the procedure precluded operation of the system between 40 psig and the RHR cut in permissive pressure (98 psig). Susquehanna entered the issue into the corrective action program (CAP) as CR-2015-22882 and CR-2015-24137 and revised the procedure to remove the requirement that precluded operation of the SDC system between 40 psig and the RHR cut in permissive pressure.

This finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems cornerstone and adversely affected its objective to ensure the availability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the 40 psig procedural limit impacted the availability and capability of RHR to be placed in SDC between 98 psi, the cut-in permissive for the system, and 40

psig. In accordance with Exhibit 2 of IMC 0609, Appendix A, “The SDP for Findings At-Power,” the inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency was not a design or qualification deficiency, did not involve an actual loss of safety function, did not represent actual loss of a safety function of a single train for greater than its TS allowed outage time, and did not screen as potentially risk-significant due to a seismic, flooding, or severe weather initiating event. This finding had a cross-cutting aspect in the area of Human Performance, Change Management because Susquehanna did not use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority (H.3). Specifically, implementation of Susquehanna’s procedure change process did not ensure that the RHR SDC procedure was maintained consistent with the requirements of plant TSs.

Inspection Report# : 2015003 *(pdf)*

Significance: G Sep 30, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
'C' EDG Rendered Inoperable by Switch Manipulation during Training Simulation
A self-revealing finding of very low safety significance (Green) and associated NCV of 10 CFR 50 Appendix B, Criterion V, “Instructions, Procedures and Drawings,” was identified when Susquehanna inadvertently operated the ‘C’ emergency diesel generator (EDG) mode switch during the performance of a job performance measure (JPM). Specifically, the student performing the JPM operated plant equipment that was contrary to the quality assurance program requirement to only simulate equipment operation. Susquehanna entered the issue into the CAP as CR-2015-19578, the ‘C’ EDG mode switch was restored to the ‘Remote’ position, and the operating crew performed a walk-down of the ‘C’ EDG to confirm proper standby alignment, restoring operability of the EDG.

Inspectors determined that the finding was more than minor because it was associated with the Human Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, improper manipulation of the ‘C’ EDG mode switch while simulating a task resulted in an inoperable condition since the EDG would not have auto started, if required. In accordance with Exhibit 2 of IMC 0609, Appendix A, “The SDP for Findings At-Power,” dated June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency was not a design or qualification deficiency, did not involve an actual loss of safety function, did not represent actual loss of a safety function of a single train for greater than its TS allowed outage time, and did not screen as potentially risk-significant due to a seismic, flooding, or severe weather initiating event. This finding had a cross-cutting aspect in the area of Human Performance, Avoid Complacency because Susquehanna did not implement appropriate error reduction tools (H.12). Specifically, personnel did not implement appropriate human error prevention tools
(e.g. self-check, stop-think-act-review) in accordance with station processes.

Inspection Report# : 2015003 *(pdf)*

Barrier Integrity

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation

Failure to Promptly Identify a Condition Adverse to Quality Associated with Primary Containment Isolation Valves

A self-revealing Green finding and associated violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," and TS 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," was identified when Susquehanna did not promptly identify a condition adverse to quality. Despite observing abnormal behavior during local leak rate testing following replacement in May 2014, Susquehanna did not take any action to ensure that certain Reactor Water Cleanup (RWCU) system PCIVs passed their subsequent testing. Consequently, these valves failed their in-service and local leak rate test in March 2016 when they failed to close upon securing system flow. The failure was caused by an internal interference between the check valve hinge and body. Following the failures in March 2016, Susquehanna repaired the valves and successfully performed local leak rate testing, restoring operability of the PCIVs. The repeat failure was entered into the CAP as CRs 2016-06960 and 2016-09940. The finding was determined to be more than minor because it was associated with the Structure, System, and Component (SSC) and Barrier Performance attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the failure to identify a condition adverse to quality during post-maintenance testing resulted in two PCIVs being rendered inoperable for longer than the TS allowed outage time. In accordance with IMC 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and Exhibit 2 of IMC 0609, Appendix A, "The SDP for Findings At-Power," dated June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency did not involve the hydrogen recombiners and did not result in an actual open pathway in the physical integrity of reactor containment. Specifically, the redundant valve for each penetration remained operable during the period in which these two valves were inoperable. This finding had a cross-cutting aspect in the area of Human Performance, Conservative Bias, because Susquehanna did not use decision making practices that emphasized prudent choices over those that are simply allowable. Specifically, Susquehanna decided to accept elevated seat leakage for two new PCIVs, assuming that they could be declassified as PCIVs. [H.14]
Inspection Report# : 2016002 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation

Loss of Safety Function of SBGT and CREOASS due to Concurrently Performing Maintenance on Redundant Trains

Green. An NRC-identified finding of very low safety significance (Green) and associated violations of TS 5.4.1, "Procedures," TS 5.5.11, "Safety Function Determination," and TS 3.7.3, "Control Room Emergency Outside Air Supply System" was identified when Susquehanna performed maintenance on redundant trains of the standby gas treatment (SBGT) system and control room emergency outside air supply system (CREOASS) concurrently. When performing these actions, operators did not apply NDAP-QA-0312, "Control of LCOs, technical requirement for operations (TROs) and Safety Function Determination Program," correctly which resulted in the unrecognized loss of safety function of SBGT and CREOASS. Susquehanna entered the issue into the CAP as CR-2015-26475 and restored one of the subsystems to service, restoring the safety function.

This finding is more than minor because it is associated with the Human Performance (Routine OPS/Maintenance Performance) attribute of the Barrier Integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers (Secondary Containment and Control Room Ventilation) protect the public from radionuclide releases caused by accidents or events. Specifically, allowing work to be performed on redundant trains of SBGT and CREOASS concurrently, while not applying plant TSs correctly, resulted in a loss of safety function of both systems. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 3 of IMC 0609, Appendix A, "The SDP for Findings At-Power," both dated June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency was only associated with the radiological barrier function of the Control Room and Secondary Containment. This finding had a cross-cutting aspect in the area of Human Performance, Avoid Complacency because Susquehanna did not recognize and

plan for the possibility of mistakes, latent problems, or inherent risk, even while expecting successful outcomes. Specifically, Susquehanna did not perform a thorough review of the planned activities every time work was performed to ensure compliance with plant TSs, rather than relying on past successes and assumed conditions.
Inspection Report# : 2015004 *(pdf)*

Significance: G Sep 30, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Secondary Containment Inoperability due to Improperly Controlled Access to the Reactor Building Roof
A self-revealing finding of very low safety significance (Green) and associated NCV of SSES Unit 1 and 2 TS 5.4.1, "Procedures," was identified because Susquehanna incorrectly implemented procedures for maintaining secondary containment integrity. Specifically, on
July 27, 2015, maintenance technicians rendered secondary containment for both units inoperable for approximately 44 minutes when a secondary containment boundary door was opened to access the reactor building roof. Susquehanna entered the issue into the CAP as CR-2015-20857 and CR-2015-24442, restored the boundary, and verified the integrity of secondary containment.

The finding was more than minor because it was associated with the Human Performance (Routine OPS/Maintenance Performance) attribute of the Barrier Integrity cornerstone, and affected the cornerstone objective of providing reasonable assurance that physical design barriers (Secondary Containment) protect the public from radionuclide releases caused by accidents or events. Specifically, opening the secondary containment barrier did not maintain reasonable assurance that the secondary containment would be capable of performing its safety function in the event of a reactor accident. The inspectors evaluated the finding in accordance with IMC 0609, Appendix A, "The SDP for Findings At-Power," Exhibit 3, for the Barrier Integrity cornerstone, dated June 19, 2012. The inspectors determined the finding was of very low safety significance (Green) because only represented a degradation of the radiological barrier function of secondary containment provided by the standby gas treatment (SBGT) system. This finding had a cross-cutting aspect in the area of Human Performance, Teamwork because Susquehanna did not effectively communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety was maintained (H.4). Specifically, when

the work plan was changed to accessing the reactor building roof through secondary containment, the change was not effectively communicated to operations department personnel to ensure the secondary containment impairment was appropriately controlled.

Inspection Report# : 2015003 *(pdf)*

Emergency Preparedness

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Critique an Incorrect PAR Notification
An NRC-identified finding of very low safety significance (Green) and associated NCV of 10 CFR 50.54(q)(2),"Emergency Plans" was identified when Susquehanna failed to identify that an incorrect notification of wind direction was made to the senior state official (SSO) during a full-scale drill. This failure was entered into the CAP as CRs 2016-14303 and 2016-14128, ERO personnel involved in the incorrect communication and the drill controllers

that failed to identify the deficiency were remediated, and lessons learned communicated to other emergency response organization personnel. The finding was more than minor because it is associated with the emergency response organization (ERO) Performance attribute of the Emergency Preparedness Cornerstone and affected the cornerstone objective to ensure 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. Specifically, the failure of Susquehanna personnel to effectively identify an exercise weakness associated with a risk significant planning standard (RSPS) caused a missed opportunity to identify and correct a drill-related performance deficiency. The inspectors assessed the issue using the Emergency Preparedness SDP, Appendix B to IMC 0609, dated September 23, 2014. Susquehanna's failure to critique the inaccurate notification met the NRC's definition of a weakness in a full-scale drill. However, because four previous notifications had accurately reported the wind direction and the miscommunication was inconsistent with the correct protective actions recommendation (PAR) that was communicated simultaneously, in consultation with a senior emergency preparedness inspector, inspectors determined the communication would likely have been corrected prior to the offsite response organizations (OROs) acting on the incorrect information, did not result in an incorrect PAR, and therefore determined that that the failure to critique the drill weakness only constituted a degradation of the planning standard (PS) function. Therefore the finding is characterized as having very low safety significance (Green). The finding is related to the cross-cutting area of Problem Identification and Resolution, Identification, in that Susquehanna did not identify a RSPS issue completely, accurately, and in a timely manner commensurate with the safety significance. Specifically, during the full-scale drill, Susquehanna failed to recognize and critique that a RSPS was not met and did not place this issue into the CAP until prompted by inspectors. [P.1]
Inspection Report# : 2016002 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Dose Assessment Capabilities in the Technical Support Center
Green. The inspectors identified a finding of very low safety significance (Green) and a NCV of 10 CFR 50, Appendix E, Section IV.B.1. Specifically, Susquehanna emergency plan implementing procedures did not provide the guidance for the dose assessment staff in the Technical Support Center (TSC) to determine the magnitude of, and continually assess the impact of, the release of radioactive materials. The TSC staff was procedurally limited to performing forward and back dose calculations, but not blowout panel calculations. Blowout panel release calculations were only to be performed by the Emergency Operations Facility (EOF) staff. Susquehanna entered this issue into their corrective action program as CR-2015-04701, which led to the revision of the applicable procedures to allow the TSC dose assessment staff to perform the full scope of dose calculations available to the EOF staff.

The inspectors determined that the failure to have the same scope of dose assessment capabilities available to the full emergency response organization (ERO) was a performance deficiency that was within Susquehanna’s ability to foresee and correct. The performance deficiency is more than minor because it is associated with the ERO Readiness and ERO Performance attributes of the emergency preparedness cornerstone, and adversely affected the cornerstone objective of ensuring that a licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Using IMC 0609, Appendix B, Section 5.9, the finding is of very low safety significance (Green) because the finding was determined to not be an example of the overall dose projection process being incapable of providing technically adequate estimates of radioactive material releases; the deficiency was limited to the TSC staff which in fact had the capability of performing dose projections and was only limited by the lack of procedural guidance. The cause of this finding has a cross-cutting aspect in the area of Documentation, because Susquehanna did not ensure that their organization creates and maintains complete, accurate and up-to-date documentation. Specifically, Susquehanna did not provide emergency plan implementing procedures to enable the TSC dose assessment staff to perform dose projections for all required radioactive material releases.
Inspection Report# : 2015004 *(pdf)*

Significance: G Jun 21, 2014
Identified By: NRC
Item Type: VIO Violation
Failure to take Action to Restore Degraded Emergency Actio nLevel Scheme
The inspectors identified a Green cited violation of 10 CFR 50.54(q)(2) for PPL's failure to follow and maintain an emergency plan that meets the requirements of the planning standards in 10 CFR 50.47(b), in that, since October 2003, PPL did not follow and maintain a standard emergency classification and action level scheme. Specifically, PPL did not take timely corrective actions to provide an adequate means to measure temperature in nine out of 21 areas, where reactor building temperatures are considered for the fission product barrier degradation emergency action levels (EALs). As a result, this deficiency adversely affected PPL's ability to classify an emergency such that a Site Area Emergency would be declared in a degraded manner. The violation is being cited because PPL has failed to restore compliance or demonstrate objective evidence of plans to restore compliance at the first opportunity in a reasonable period of time following discussion in a formal exit meeting on January 24, 2014 and documented in NRC Inspection Report 05000387;388/2013005 on February 14, 2014.
The finding is more than minor because it is associated with the Facilities and Equipment attribute of the emergency preparedness cornerstone, and adversely affected the cornerstone objective of ensuring that a licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, the continuing lack of installed temperature instrumentation or any other compensatory measures and the reliance on personnel dispatched to take temperature readings were insufficient to ensure a timely and accurate EAL classification could be made. Using IMC 0609, Appendix B, "Emergency Preparedness Significance Determination Process", section 5.4, the finding is of very low safety significance (Green) because the finding was determined to be an example of an ineffective EAL initiating condition, such that a Site Area Emergency would be declared in a degraded manner.
The inspectors determined that this finding had a problem identification and resolution cross-cutting aspect related to Resolution because PPL did not take corrective actions in a timely manner nor did they take appropriate interim corrective actions to mitigate the issues while more fundamental causes are being assessed. Specifically, PPL had no corrective actions planned or taken to address the degraded EALs until NRC approval of their new EAL scheme, currently scheduled to be implemented no earlier than December 2015.

Inspection Report# : 2014009 *(pdf)*

Occupational Radiation Safety

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Entry into a High Radiation Area without Radiological Briefing
A Green self-revealing NCV of TS 5.7.1, High Radiation Area Controls, was identified when a worker did not comply with a radiological posting barrier and other access control requirements for high radiation area (HRA) entry. Specifically, on December 26, 2015, a security officer entered into a posted HRA without proper authorization. This was entered into the CAP as CR-2015-33947, the HRA barrier was moved further out, and a shield rack was placed in front of the condenser bay door to reduce radiation dose rates. The finding was determined to be more than minor based on similarity to example 6.h in IMC 0612, Appendix E, and it is associated with Human Performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective to ensure adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Specifically, the individual violated the HRA posting, radiation work permit (RWP) and briefing requirements designed to protect the worker from unnecessary radiation exposure. Using IMC 0609, Appendix C,

"Occupational Radiation Safety SDP," dated August 19, 2008, the finding was determined to be of very low safety significance (Green) because it did not involve: (1) as low as is reasonably achievable (ALARA) occupational collective exposure planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The finding is related to the cross-cutting area of Problem Identification and Resolution, Resolution, in that the organization did not ensure that corrective actions to address the cause of repetitive electronic dosimeter alarms in this area of the plant and had not been sufficiently evaluated and had not enhanced radiological controls to prevent this issue from recurring. [P.3]
Inspection Report# : 2016002 *(pdf)*

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Entry into a Locked High Radiation Area without Radiological Briefing
A Green self-revealing NCV of TS 5.7.2, High Radiation Area Controls, was identified when workers entered the wrong reactor unit condenser bay (Unit 2) that was posted and controlled as a locked high radiation area (LHRA). Specifically, on May 3, 2016, four Susquehanna staff were briefed to enter the Unit 1 condenser bay to check for steam leaks during start up, however the staff entered the Unit 2 condenser bay during full power operations in error and received electronic dosimeter alarms. This was entered into the CAP as CR-2016-11944, the use of master keys for routine entry into LHRA was discontinued, and a radiation safety stand down was conducted. The finding was determined to be more than minor based on a similar example 6.h in IMC 0612, Appendix E, and it is associated with Human Performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective to ensure adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Specifically, Susquehanna staff violated the RWP and briefing requirements designed to protect workers from unnecessary radiation exposure. Using IMC 0609, Appendix C, "Occupational Radiation Safety SDP," dated, August 19, 2008, the finding was determined to be of very low safety significance (Green) because it did not involve: (1) ALARA occupational collective exposure planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The finding was self-revealing because Susquehanna was made aware of the situation as a result of an electronic dose rate alarm. The finding is related to the cross-cutting area of Human Performance, Teamwork because the workers did not conduct peer checking and recognize and communicate that they were in the wrong reactor unit for the work they were conducting. Specifically, four Susquehanna staff were briefed to enter the Unit 1 condenser bay to check for steam leaks during start up, however the staff entered the Unit 2 condenser bay. [H.4]
Inspection Report# : 2016002 *(pdf)*

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: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Report Loss of Safety Function as Required by 10 CFR 50.73(a)(2)(v)
Inspectors identified a Severity Level IV NCV of 10 CFR Part 50.73 (a)(2)(v) when Susquehanna did not submit a licensee event report (LER) within 60 days of identifying that both trains of the control room emergency outside air supply system (CREOASS) were rendered inoperable during surveillance testing, a condition that could have prevented fulfillment of a safety function. Susquehanna entered the issue into the CAP as CR-2016-03713 and reported the condition on May 5, 2016 in LER 50-388(387)/2015-015. Since the issue had the potential to affect the NRC's ability to perform its regulatory function, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. Using example 6.9.d.9 from the NRC Enforcement Policy, the inspectors determined that it was a Severity Level IV violation. The significance of the associated performance deficiency was also screened against the reactor oversight process (ROP) per the guidance of IMC 0612, Appendix B, "lssue Screening." Because this violation involves the traditional enforcement process and does not have an associated finding under the ROP, inspectors did not assign a cross-cutting aspect to this violation.

Inspection Report# : 2016001 *(pdf)*

Last modified : August 29, 2016