Susquehanna 2
2Q/2016 Plant Inspection Findings

Initiating Events

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 Jun 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
HPCI Overridden Prior to Manual Reactor Scram
An NRC-identified 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 controlling the high pressure coolant injection (HPCI) system. Specifically, operators overrode automatic initiation of the system prior to inserting a manual scram, contrary to the requirements of OP-252-001, "HPCI System," and OP-AD-300, "Administration of Operations." This was entered into the CAP as CRs 2016-12854 and 2016-13118 and 2016-13136, the operator's involved in the event were remediated, and lessons learned communicated to other station personnel. The finding was more than minor because it was associated with the Human Performance attribute of the Mitigating Systems Cornerstone and affected the objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, overriding the HPCI system prior to initiating a plant scram rendered the system unavailable to respond to a level transient or failure of the non-safety related feedwater system. 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 required a detailed risk assessment because it represented a loss of the single train system's function. The Region 1 SRA performed a detailed risk evaluation using the Susquehanna Unit 2 standardized plant analysis risk (SPAR) Model, version 8.23. The issue was conservatively modeled with a HPCI failure to start due to the system automatic start signal being overridden.
The change in core damage frequency per year was determined to be in the E-10 range due to the very short duration the system auto start feature was defeated. Therefore the issue was determined to be of very low safety significance (Green). The finding is related to the cross-cutting area of Human Performance, Procedure Adherence because Susquehanna did not follow processes, procedures and work instructions. Specifically, operators did not ensure that their actions were appropriately authorized by procedures when taking action to override a key safety system prior to a plant transient. [H.8]
Inspection Report# : 2016002 *(pdf)*

Significance: G Mar 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Assess and Manage Risk of Maintenance Activities for a SLC System Flow Surveillance
The inspectors identified a Green NCV of 10 CFR 50.65(a)(4) because Susquehanna did not adequately assess the risk of performing maintenance in accordance with station procedures. Specifically, Susquehanna did not assess the risk of performing a standby liquid control (SLC) system flow surveillance in conjunction with having the 'D' emergency diesel generator (EDG) unavailable and therefore did not specify appropriate risk management actions (RMAs). Susquehanna entered the issue into the CAP as CR-2016-04137. The inspectors determined that this performance deficiency is more than minor because it was associated with the Human Performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Additionally, the finding is similar to example 7.e. in NRC IMC 0612 Appendix E, "Examples of Minor Issues." This example states, in part, that failure to perform an adequate risk assessment when required by 10 CFR 50.65 (a)(4) is not minor if the overall elevated plant risk would put the plant into a higher licensee-established risk category or would require, under plant procedures, RMAs or additional RMAs. In this case, the combination of the 'D' EDG maintenance and SLC flow surveillance resulted in changing risk to Yellow which required additional RMAs in accordance with station procedures. The inspectors evaluated the finding using IMC 0609 Appendix K, "Maintenance Risk Assessment and Risk Management SDP." The inspectors and the Region I senior resident analyst used Appendix K, Flowchart 1, "Assessment of Risk Deficit," and determined that the inadequate risk assessment was of very low safety significance (Green). The basis for this determination was that the short duration of the actual planned maintenance activities (3.5 hours) associated with the SLC unavailability results in less than E-9 calculated incremental core damage probability deficit (ICDPD) using Susquehanna's risk model. Since the resultant ICDPD is below 1 E-8 threshold, the finding was determined to be Green. This finding
was determined to have a cross-cutting aspect in the area of Human Performance, Work Management in that Susquehanna did not appropriately incorporate insights from probabilistic risk assessments into the daily work activities [H.5]. Specifically, Susquehanna did not appropriately assess the risk of performing maintenance activities as specified in station procedures.
Inspection Report# : 2016001 *(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 Dec 31, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation

Failure to Correct a Condition Adverse to Quality Associated with an Inoperable Primary Containment Isolation Valve
Green. A self-revealing finding of very low safety significance (Green) and associated violations of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," and Technical Specification (TS) 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," was identified when Susquehanna did not take adequate corrective action to address the inoperability of the reactor recirculation sample line outboard PCIV when it failed during surveillance testing on July 1, 2015. The valve failed its subsequent surveillance test on September 30, 2015 due to the same degraded condition, which rendered the valve inoperable for longer than the allowed outage time specified in TS 3.6.1.3. The repeat failure was entered into the CAP as CR-2015-26590 and restored the valve to an operable condition by replacing its associated solenoid valve.

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 correct the degraded condition of solenoid valve sticking resulted in a PCIV being rendered inoperable for longer than the TS allowed outage time. Inspector evaluated the finding 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, and determined it is of very low safety significance (Green) because the performance deficiency did not result in an actual open pathway in the physical integrity of reactor containment, because the inboard valve remained operable for the duration of the inoperability, and it did not involve the hydrogen recombiners. This finding had a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, because Susquehanna did not stop when faced with uncertain conditions and ensure the risks were evaluated and managed before proceeding. Specifically, Susquehanna did not challenge the unanticipated test results and did not ensure that the condition adverse to quality, associated with the faulty solenoid valve, was resolved prior to considering the valve operable.
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

Last modified : August 29, 2016