

Susquehanna 2

1Q/2005 Plant Inspection Findings

Initiating Events

Significance:  Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

PPL Did Not Retest and Evaluate Transformer 2X270

The inspectors identified a finding because PPL did not complete an evaluation of the condition of Unit 2 transformer 2X270 as required by a station procedure before energizing the transformer. Not completing the evaluation allowed a degraded transformer to be returned to service. The transformer faulted shortly after being placed in service which resulted in a loss of main condenser vacuum.

This finding is greater than minor because it adversely impacts the equipment performance attribute of the Initiating Events cornerstone and the finding adversely affected the cornerstone objective, in that, it is associated with an event that upset plant stability. This finding was considered to have very low safety significance (Green), using phase 1 of the significance determination process. The failure of transformer 2X270 did not increase the likelihood of an LOCA initiator, and did not increase the likelihood of a reactor trip and the likelihood that mitigation functions would be lost. In addition, the finding did not increase the likelihood of a fire or flood event.

A contributing cause of this finding is related to the Human Performance cross-cutting area because PPL did not complete the required retest and engineering evaluation of transformer 2X270 prior to energizing the transformer. (Section 1R19)

Inspection Report# : [2004004\(pdf\)](#)

Significance:  Jun 30, 2004

Identified By: NRC

Item Type: FIN Finding

Loss of One Offsite Power Source to Unit 2 (Operating Unit)

A self-revealing finding was identified because PPL did not ensure that the contract workers cleaning the Unit 1 cooling tower maintained the required minimum distance from an energized electrical line. PPL's Safety Operations Safety Rule Book requires a minimum distance of 15 feet 8 inches from an energized 230 KV offsite electrical power line. Subsequently, the worker in a bucket lift contacted the 230 KV line which resulted in the loss of one of two offsite electrical power sources for Unit 2. This resulted in the loss of one of two station startup transformers, T-10. In addition, the loss of T-10 resulted in a loss of condensate transfer keepfill water supply for the Unit 2 "A" and "C" residual heat removal pumps. The pumps were rendered inoperable when the system keepfill pressure dropped below 50 pounds per square inch gauge, the minimum value for pump operability, as required by PPL procedure.

This finding is more than minor because the deficiency affects the Initiating Events and Mitigating Systems cornerstone attributes related to equipment performance which reduced availability for the T-10 offsite power source and the "A" and "C" residual heat removal pumps. The error adversely affected the objective of the Initiating Events cornerstone to limit the likelihood of those events that upset plant stability such as loss of offsite power. The finding is of very low safety significance because Transformer T-10 was out-of-service for a short period of time (30 hours) and "B" and "D" residual heat removal pumps, as well as remaining containment venting and power conversion systems, were unaffected. Also, the error adversely affected the objective of the Mitigating Systems cornerstone to ensure the availability, reliability and capability of systems that respond to initiating events to prevent reactor core damage. (Section 1R14.1)

Inspection Report# : [2004003\(pdf\)](#)

Mitigating Systems

Significance:  Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

Diesel Driven Fire Pump Lack of Engine Cooling

A finding of low safety significance was identified because PPL did not adequately evaluate and correct a degraded condition associated with the high engine operating temperatures and repetitive overheating of the diesel driven fire pump (DFP) which occurred following engine shutdown.

This issue is greater than minor because it affected the Mitigating Systems cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance, based on a Phase 1 significance determination process evaluation, because the finding did not result in the loss of a function of equipment designed as risk significant for greater than 24 hours and the finding does not increase the potential or risk of a seismic event, flood or severe weather event.

A contributing cause of this finding is related to the Problem Identification and Resolution (PI&R) cross-cutting area. PPL did not sufficiently evaluate the condition to identify and correct the reduced cooling water flow to the DFP engine. This resulted in ineffective corrective actions because the DFP was removed from service several times without taking action to correct the DFP high engine coolant temperature issue. (Section 40A2.3)

Inspection Report# : [2004004\(pdf\)](#)

Significance:  Apr 23, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify Loose Governor Hold-Down Bolts

The inspectors identified a non-cited violation for the licensee's failure to identify loose governor mounting screws on the 'A' EDG prior to January 2004. The loose mounting screws could have been identified in September and December 2003 when oil leaks were identified, documented, and cleaned without determining the source of the leak.

The finding is more than minor because, if not corrected, the loose governor mounting screws could have resulted in erratic operation of the diesel generator when needed to mitigate loss of offsite power scenarios.

Inspection Report# : [2004007\(pdf\)](#)

Significance:  Apr 23, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Maintenance Work Instructions Not Implemented to Tighten a "D" Emergency Diesel Generator Governor Bolt

The inspectors identified a non-cited violation for the licensee's failure to comply with work package instructions during replacement of the governor on the "D" emergency diesel generator (EDG). This violation is related to the failure to torque the connecting bolt between the governor output shaft arm and the fuel rack linkage, which resulted in the fuel rack linkage becoming detached in March, 2003, making the EDG inoperable. This finding is greater than minor because it affected the Mitigating System Cornerstone objective of equipment reliability, in that the function of the 'D' emergency diesel generator was compromised when the fuel rack linkage separated. The finding is of very low safety significance because the other three divisional EDGs remained operable, and the 'E' EDG could have been substituted for the failed 'D' EDG. This issue also covers Human Performance cross-cutting area.

Inspection Report# : [2004007\(pdf\)](#)

Barrier Integrity

Significance:  Mar 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Equipment Status for a Degraded Control Room Radiological Barrier Door

A self-revealing non-cited violation (NCV) was identified because PPL did not correctly implement the equipment status control procedure, in accordance with Technical Specification 5.4.1.a, which resulted in degrading the radiological barrier function for the control room. This finding is greater than minor because the loss of equipment status control resulted in an actual degradation of barrier performance which is an attribute of the Barrier Integrity cornerstone. This finding is of very low safety significance because only the radiological barrier function provided for the control room was affected. The inspectors identified that a contributing cause of this finding is related to the organizational performance category of the Human Performance cross-cutting area, in that PPL did not initially recognize the radiological barrier function of the control structure boundary door because the references utilized by PPL to determine the functions of the degraded door did not contain complete design information (Section 1R15).

Inspection Report# : [2005002\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

Last modified : June 17, 2005