

Susquehanna 1

1Q/2006 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Mar 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Equipment Hatch Plugs are not Watertight as Indicated in the FSAR

A self-revealing non-cited violation was identified for not complying with 10 CFR 50, Appendix B, Criterion III, "Design Control." PPL did not assure that the emergency core cooling system (ECCS) compartments were water tight as described in the Final Safety Analysis Report (FSAR). This resulted in water intrusion into two ECCS compartments simultaneously during an unexpected overflow of the reactor water cleanup backwash receiving tank on August 18, 2004. PPL entered this issue into the corrective action program, re-performed numerous internal flood analysis and concluded that the hatch plugs do not have to be leak tight. In addition, PPL sealed the gaps around the equipment hatch plugs.

This finding is greater than minor because it is associated with the Mitigating Systems Cornerstone of design control and affects the cornerstone's objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). The water intrusion reduced the capability of the division II core spray system because the system auto start feature was manually disabled for approximately two hours. The inspectors performed a Phase 1 screening using IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green) because this design deficiency did not result in a loss of function in accordance with Generic Letter 91-18.

Inspection Report# : [2006002\(pdf\)](#)

Significance:  Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Foreign Material Exclusion Procedural Instructions Associated with EDG Work

A Green, self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified because PPL failed to provide adequate procedural instructions associated with foreign material controls when working in emergency diesel generator (EDG) bays or work areas. As a result, foreign material caused a failure of the "C" EDG turbocharger during its biennial 24 hour endurance run and the associated inoperability of the "C" EDG. PPL entered this issue for resolution in their corrective action program and have incorporated Foreign Material Exclusion (FME) controls for all EDG work areas in station procedures.

The finding is more than minor because it is associated with the Mitigating System cornerstone attribute of equipment reliability and availability and affected the cornerstone's objective of ensuring that safety-related equipment is capable of responding to initiating events to prevent undesirable consequences. This finding was considered to have very low safety significance (Green) using Phase 1 of the significance determination process because it did not result in a actual loss of safety function and it was not potentially risk-significant due to external events.

Inspection Report# : [2005005\(pdf\)](#)

Significance:  Dec 02, 2005

Identified By: NRC

Item Type: FIN Finding

Fire Brigade Drill Program Not Consistent With Regulatory Guidance and Industry Standards

The inspectors identified a Green finding regarding the implementation of the fire brigade drill program. The finding involves practices that are not consistent with regulatory guidance (Branch Technical Position (BTP) SPLB 9.5.1 and Regulatory Guide (RG) 1.189) and industry standards for the performance and crediting of fire brigade drills. Specifically, the program does not result in the five member, on-shift, fire brigade practicing as a team during drills and consequently does not allow for an effective assessment of the brigade's performance during drills. In addition, two examples were identified where the licensee failed to implement specific drill program requirements. The licensee has entered these issues into their corrective action program for review and resolution.

The finding is more than minor because it affected the Protection Against External Factors attribute of the Mitigating Systems Cornerstone, in that it impacted manual fire suppression (fire brigade) capability; and affected the cornerstone objective of ensuring the availability of systems that respond to initiating events. This finding has been reviewed by NRC management and is determined to be a finding of very low safety significance (Green). (Section 1R05.04)

Inspection Report# : [2005009\(pdf\)](#)

G

Significance: Jun 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Evaluation for a Degraded Emergency Service Water Ventilation Damper

The NRC identified a non-cited violation for not implementing the Temporary Change procedure, in accordance with Technical Specification 5.4.1.a, "Administrative Controls - Procedures." The temporary change performed in the field resulted in a loss of seismic qualification of the "D" emergency service water (ESW) ventilation subsystem. When this was discovered the "D" ventilation subsystem and the "D" ESW pump were declared inoperable in accordance with the Technical Requirements Manual, Section 3.7.6.E. The inspectors determined that failure to implement the temporary change procedure as required by Technical Specifications caused the loss of the seismic qualification of the "D" ESW ventilation subsystem, which provides cooling for the ESW pumps. PPL declared the "D" ESW ventilation subsystem and the "D" ESW pump inoperable, performed an engineering evaluation (EWR 681288) and approved the use of a special tool to secure and maintain the seismic qualification of the damper. PPL installed this tool and declared the damper operable on June 7, 2005.

This finding is more than minor because the loss of seismic qualification affected the "Protection Against External Factors" Attribute of the Mitigating Systems cornerstone and the objective of ensuring capability of a system (ESW) that responds to initiating events to prevent undesirable consequences. This finding is of very low safety significance because the qualification deficiency did not result in the loss of function.

The inspectors identified that a contributing cause of this finding was related to the organizational performance category of the Human Performance cross-cutting area because operations and maintenance did not recognize the need to have engineering evaluate the method that was used to secure the damper in accordance with NDAP-QA-1218, "Plant Changes."

Inspection Report# : [2005003\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

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

Miscellaneous

Significance: N/A Feb 10, 2006

Identified By: NRC

Item Type: FIN Finding

PI&R Inspection Summary

The team concluded that the implementation of the corrective action program (CAP) at Susquehanna was generally good. The team determined that Susquehanna was effective at identifying problems and entering them in the CAP. However, while the identification of equipment deficiencies was acceptable, the team identified one finding and several minor issues where there appeared to be an attitude of acceptance of deficiencies and abnormal conditions. Once entered into the system, the items were screened and prioritized in a timely manner using established criteria. Items entered into the CAP were properly evaluated commensurate with their safety significance. The causal evaluations

reasonably identified the causes of the problems and developed appropriate corrective actions. The team noted a trend over the last two years of a lack of rigor with regard to operability evaluations. Corrective actions were typically implemented in a timely manner and appropriately addressed the root causes. However, the team identified one example where the corrective actions to prevent repetition for a NRC identified NCV were implemented in an ineffective manner constituting a minor violation. Licensee audits and self-assessments were generally adequate. The team also noted that the licensee's efforts to reduce human performance error rates were continuing. On the basis of interviews conducted during the inspection, the team concluded that workers at the site felt free to input safety concerns into the CAP.

Inspection Report# : [2006006\(pdf\)](#)

Last modified : May 25, 2006