Seabrook 1
2Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Tagging Procedure Caused Inadvertant Drain of 200 Gallons From RCS
A self-revealing non-cited violation of Technical Specification 6.7.1.a was identified for the failure to implement written procedures governing safety-related activities. Specifically, on April 20, 2008, FPLE failed to implement tagging and configuration control procedures, resulting in the loss of configuration control during shutdown operations when flow was established through a partially disassembled charging system valve. This resulted in a 200 gallon leak of reactor cavity water onto the floor of the Primary Auxiliary Building (PAB). The letdown flow path was established while work was in progress on valve CS-V-299. A clearance boundary was modified with the incorrect assumption that CS-V-299 was intact.

This finding was more than minor because it was associated with the configuration control attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of plant events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the loss of configuration control in the charging system unintentionally drained 200 gallons from the reactor cavity, which affected the shutdown critical safety function of maintaining adequate reactor inventory, and caused an uncontrolled leak of radioactively contaminated water to a work area. The finding was determined to be of very low safety significance (Green) using the SDP Appendix G assessment, since the finding did not result in a loss of control of shutdown operations and adequate mitigation capabilities remained available.

The finding has a cross-cutting aspect in the area of human performance, work control, since FPL Energy did not plan and coordinate work activities consistent with nuclear safety (H.3(b)). Specifically, FPLE revised a clearance tagging boundary without verifying the status of affected work activities in accordance with site procedures.

Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Corrective Actions to Prevent Recurrance of Mispositioned Stow-Operated Valves Caused Inadvertant Drain of 2000 Gallons From RCS
A self-revealing non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Actions,” was identified because FPLE did not implement corrective actions to prevent recurrence of mispositioned valves caused by difficult to operate stow-operator reach rods. Specifically, on April 20, 2008, a mispositioned (partially open), stow-operated filter drain valve, CS-V-1190, resulted in the inadvertent draining of 2000 gallons of water from the reactor cavity while operators placed the reactor letdown system into service. The drain valve was partially open because it was difficult to operate when positioned with its stow-operator. The mispositioning of a stow-operated valve in a safety system was a repeat occurrence of a similar event in October 2007.

This finding was more than minor because it was associated with the configuration control attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of plant events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the loss of configuration control in the charging system unintentionally drained 2000 gallons from the reactor cavity, which affected the shutdown critical safety function of maintaining adequate reactor inventory. The finding was determined to be of very low safety significance (Green) using the SDP Phase 1 assessment, since the finding did not result in a loss of control of shutdown operations and adequate mitigation capabilities remained available.

The finding has a cross-cutting aspect in the area of problem identification and resolution because FPL Energy did not take appropriate corrective actions to address safety issues in a timely manner commensurate with their safety significance and complexity (P.1.d). Specifically FPL Energy did not take adequate corrective actions to assure the correct positioning of stow-operated safety system valves and thereby prevent recurrence of a significant condition adverse to quality.
Inspection Report# : 2008003 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Enclosure Building Air Handling Fan Failed Due to Failure to Implement Procedure to Torque Cable Connections
A self-revealing, non-cited violation of Technical Specifications 6.7.1.a was identified for a failure to implement written procedures governing safety-related activities. Specifically, the requirement of maintenance procedure LX0557.04 to torque breaker electrical connections to 21 inch-pounds was not met during maintenance in 2006 on Enclosure Building Air Handling (EAH) Fan 180A. As a result, the breaker's 'C' lead had become loose causing the breaker to trip on over-current when the fan was started on December 13, 2007. The finding had a cross-cutting aspect in the area of human performance under work practices because personnel did not follow procedures (H.4(b)).

This finding was more than minor because it affected the Mitigating Systems cornerstone attribute of equipment performance and the objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. Also, the inadequate workmanship resulted in an actual failure to a safety-related support system. The finding was determined to be of very low significance (Green) using the SDP Phase 1 assessment because the finding did not represent a loss of system safety function. The mitigating system remained operable despite the loss of the EAH 180 A since the EAH 180 B fan was placed into service, and EAH 180A was restored to operable within allowed technical specification outage time for a single train. The issue was entered into the corrective action program as Condition Report 07-15832.

Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Evaluation of the Low Strength Bolts in the Residual Heat Removal System
The inspectors identified a non-cited violation of 10CFR50, Appendix B, Criterion XVI associated with FPL's failure to identify a condition adverse to quality related to bolts in the safety-related residual heat removal (RHR) system. FPL had previously recognized the need to revise Piping Specification 248-1 governing the use of low strength bolting in certain safety-related piping applications. FPL had previously found that the use of low strength bolting in certain safety systems was acceptable based on past engineering evaluations and calculations. Engineering evaluations supporting an Operability Determination dated November 2, 2007, relied on engineering judgments and past evaluations to conclude that the continued use of low strength bolts was acceptable. In response to NRC requests for information to demonstrate bolt stresses were acceptable, FPL identified errors in the calculations supporting 1987 engineering evaluations. FPL completed additional calculations which showed that the bolt stresses on two flanges in the B train of the residual heat removal system were above the ASME code allowable stresses, but below the yield stresses.

This finding was more than minor because it affected the Mitigating Systems cornerstone attribute of equipment performance and the objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance (Green) using the SDP Phase 1 assessment, since the RHR piping remained operable, but degraded with the low strength bolts installed. The FPL review process and evaluations, absent the inspection by the NRC, was insufficient to identify a condition adverse to quality related to the RHR system. FPL's past process for resolving issues related the Specification 248-1

and the acceptability of the continued use of low strength bolts was inadequate for assuring compliance with the licensing basis. FPL entered this issue into the corrective action program as Condition Report 07-14282.

Inspection Report# : 2007005 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Control a High Radiation Area as a Locked High Radiation Area.
A self-revealing non cited violation of Technical Specification 6.11.2 was identified. Specifically, on May 1, 2008, FPLE failed to identify and control an existing high radiation area with dose rates greater than 1000 millirems per hour in the reactor containment building. A worker was exposed to higher than expected radiation levels of approximately 2,270 mrems per hour. The worker received a dose of 4 millirem.

The finding is more than minor because it is associated with the occupational radiation safety cornerstone attribute of exposure control and affected the cornerstone objective, because not controlling the locked high radiation areas could increase personal exposure. The finding was determined to be of very low safety significance (Green) using the SDP assessment because it did not involve ALARA planning and controls, an overexposure, a substantial potential for overexposure, or an impaired ability to assess dose.

The finding had a cross-cutting aspect in the area of human performance, work control, because FPLE did not adequately assess changing area dose rates caused by operating activities, and thus did not adequately plan a work task with due consideration of the actual radiological conditions at the job site (H.3(a)).

Inspection Report# : 2008003 *(pdf)*

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : August 29, 2008