

# Seabrook 1

## 1Q/2008 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:**  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.

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:**  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)

**Significance:**  Apr 27, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate RWST level uncertainty analysis**

The team identified a finding of very low safety significance involving a non-cited violation of 10CFR50, Appendix B, Criteria III, Design Control. Specifically, the instrument uncertainty calculation for the refueling water storage tank (RWST) level instruments took credit for instrument temperature compensation; however, the instruments were not temperature compensated. Additional inaccuracies associated with the bulk temperature mismatch and air pressure differences resulted in a non-conservative RWST level error. In response, FPL implemented a compensatory action to maintain adequate margin to the Technical Specification (TS) limit until engineering modified the level measurement to include temperature compensation.

The finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone objective of ensuring availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was determined to be of very low significance, based on Phase 1 of the SDP, because it did not result in the loss of RWST operability.

Inspection Report# : [2007006](#) (pdf)

**Significance:**  Apr 27, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Non-conservative TDEFWP steam admission valve stroke time test acceptance criteria**

The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XI, Test Control. The team determined that FPL did not ensure that the turbine driven emergency feedwater pump (TDEFWP) steam admission valve, MS-V-395, inservice test (IST) procedures had acceptance criteria that incorporated the limits from applicable design documents. Specifically, the design basis stroke time of MS-V-395 was not correctly stated in the IST program so that the valve stroked faster than the design basis requirement, but was still considered operable per IST requirements. Following identification of the issue, FPL declared the TDEFWP inoperable, entered the applicable TS, restored the valve stroke time to within its design basis range, and entered the issue into the corrective action program (CAP) for resolution.

The finding is more than minor, because it is associated with the procedural quality attribute of 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 was determined to be of very low significance, based on Phase 1 of the SDP, because it did not result in the loss of a safety function.

Inspection Report# : [2007006](#) (pdf)

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## **Barrier Integrity**

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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# Public Radiation Safety

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## 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.

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## Miscellaneous

Last modified : June 05, 2008