

## FitzPatrick 4Q/2005 Plant Inspection Findings

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### Initiating Events

**G****Significance:** Dec 31, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Comply with TS 3.8.1 Required Actions for One Offsite Power Circuit Inoperable**

A Green self-revealing non-cited violation (NCV) of Technical Specification (TS) limiting condition for operation (LCO) 3.8.1, "Electrical Power Systems - AC Sources - Operating," occurred for Entergy's failure to comply with the LCO required actions for one inoperable offsite power circuit. The performance deficiency is that the condition of Line 4 was not effectively monitored such that the degraded phase A bus bar was not identified. This resulted in exceeding the TS 3.8.1 allowed outage time. This issue was entered into the corrective action program. The bus bar was repaired and a process to monitor bus voltage was implemented. Long term corrective actions are under development.

The finding is greater than minor significance because it is associated with the Initiating Events Cornerstone attribute of configuration control and adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the finding is determined to be of very low risk significance because as a transient initiator it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Because this finding is of very low safety significance and has been entered in Entergy's corrective action program, the violation is being treated as a non-cited violation.

Inspection Report# : [2005006\(pdf\)](#)**G****Significance:** Oct 27, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Adequately Inspect Safety-Related Pip Support**

A Green self-revealing non-cited violation (NCV) was identified for failure to comply with 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." As a result of not adequately implementing a pipe support inspection procedure, a through-wall crack and leakage developed in the common residual heat removal (RHR) shutdown cooling (SDC) system suction pipe. After the leak was found, Entergy identified a 1/32 - inch gap between the pipe and adjacent pipe support PFSK-2084. Because of the gap, PFSK-2084 was not bearing its design load or adequately resisting normal pipe movement during system operation. This resulted in low stress, high cycle fatigue cracking of the pipe.

While the leakage was self-revealing, a performance deficiency existed in that a gap between pipe support PFSK-2084 and the SDC pipe was not identified during an examination in 1985 or in the interval leading up to the fatigue failure in 2005. The finding was more than minor because it affected the initiating events cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations. The leakage resulting from the crack would not have resulted in the loss of the residual heat removal (RHR) system or adversely impacted other mitigating systems. Since the finding did not require a quantitative assessment, it was determined to be Green (very low safety significance) based on Figure 1 of IMC 0609, Appendix G.

Inspection Report# : [2005009\(pdf\)](#)**G****Significance:** Sep 30, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Inadequate AOP Resulted In Reactor Trip**

A self-revealing NCV of Technical Specification (TS) 5.4, "Procedures", occurred when Entergy failed to maintain a procedure appropriate to the circumstances. Specifically, abnormal operating procedure (AOP)-21, "Loss of UPS," did not include adequate instructions for restoring automatic feedwater level control following a momentary loss of uninterruptible power supply. This resulted in an automatic reactor scram on September 14, 2005, due to low reactor vessel water level. Entergy revised the procedure as a corrective action for this violation.

The finding is greater than minor because it affected the procedure adequacy attribute of the initiating event cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. The inspectors determined the finding to be of very low safety significance using the Phase 1 SDP screening worksheet for at power situations. The finding screened to Green because it does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available, and is not potentially risk significant due to external events. This finding is associated with the human performance cross-cutting area in that Entergy failed to maintain a procedure appropriate to the circumstances. Specifically, AOP-21 did not include adequate instructions for restoring automatic feedwater level control following a momentary loss of UPS.

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

## Mitigating Systems

**G****Significance:** Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate 10 CFR 50.59 Safety Evaluation Associated with Safety Relief Valves**

A Green (Severity Level IV) non-cited violation of 10 CFR 50.59 was identified for failure to perform an adequate safety evaluation (SE) of a change to the facility. Specifically, Entergy's SE did not adequately evaluate the potential for a malfunction with a different result associated with the elimination of safety relief valve (SRV) accumulator check valve leakage testing. The issue was entered into the corrective action program. An operability evaluation concluded that the equipment was operable and additional corrective actions are under review.

Entergy's less than adequate 10 CFR 50.59 safety evaluation constitutes a performance deficiency. This finding has been addressed using traditional enforcement since it potentially impacted or impeded the regulatory process in that a required 10 CFR 50.59 evaluation was not adequate. This is contrary to the regulatory process that allows licensees to make changes without a license amendment provided that licensees comply with the 10 CFR 50.59 process. The finding is greater than minor, because there was a reasonable likelihood that the change would have required NRC review and approval prior to implementation. This finding was evaluated using the SDP for the mitigating systems cornerstone and was determined to be a finding of very low safety significance (Green), because it did not impact operability of the SRVs, and was not potentially risk-significant due to possible external events. Because this finding is of very low safety significance and has been entered in Entergy's corrective action program, the violation is being treated as a non-cited violation.

Inspection Report# : [2005006\(pdf\)](#)**G****Significance:** Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Maintain Diesel-Driven Fire Pump Performance**

A Green NRC-identified non-cited violation of 10 CFR 50.65(a)(2) was identified for a failure to demonstrate that the performance of the back-up diesel-driven fire pump 76P-4 was being effectively controlled through the performance of appropriate preventive maintenance.

Specifically, the pump did not complete its surveillance runs on at least four occasions between October 2003 and December 2005 due to fouling of the diesel engine cooling water strainer. To address this, maintenance was performed in each case to clean the strainer. However, this maintenance did not prevent recurrence and did not ensure the pump remained capable of performing its intended function. The issue was entered into the corrective action program and corrective actions are under review. The finding is associated with the cross cutting area of problem identification and resolution since there were repetitive failures of the back-up diesel driven fire pump.

The finding is more than minor, because the performance of the component was degraded, and that the degraded performance affected the objectives of the Mitigating Systems Cornerstone. Specifically, the continued reliability of the pump was affected. The inspectors evaluated this finding using the site-specific Phase 2 SDP worksheets. This analysis showed the safety significance to be very low based on alternate sources remaining available. Because this finding is of very low safety significance and has been entered in Entergy's corrective action program, the violation is being treated as a non-cited violation.

Inspection Report# : [2005006\(pdf\)](#)**G****Significance:** Oct 27, 2005

Identified By: NRC

Item Type: FIN Finding

### **Failure To Consider the Relevant Factors in Conducting the Initial Engineering Evaluation of the Flaw in the Torus Shell**

A Green self-revealing finding was identified for failure to consider the relevant factors in conducting the initial engineering evaluation of the flaw in the torus shell. Specifically, the initial evaluation of the cracked torus and through-wall leakage did not consider the proximity of the HPCI steam exhaust to the degraded area of the torus shell. The issue was documented in the licensee's corrective action program as CR -JAF-2005-02735, "HPCI Line not Considered in Initial Evaluation of Torus Operability".

This self-revealing finding was of more than minor safety significance because the location of the high pressure coolant injection (HPCI) exhaust line resulted in unanalyzed hydrodynamic loads that resulted in torus cracks and minor leakage. Although this condition placed the torus outside of its design limits, subsequent structural and material analyses of the condition demonstrated that the torus would have been able to perform its mitigating safety function for all design basis transients and accidents. The finding was determined to be Green (very low safety significance) based on IMC 0609, Appendix A, Phase 1 SDP worksheet for at-power situations. The inspectors determined that the finding represented a design deficiency that did not result in a loss of function per Generic Letter 91-18, Revision 1.

Inspection Report# : [2005009\(pdf\)](#)**G****Significance:** Jul 01, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate Design Control of West Cable Tunnel Cooler 67E-11**

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," because Entergy did not maintain adequate design control of the west cable tunnel unit cooler (UC) 67E-11 to ensure that it would perform its safety-related function under design basis conditions. Specifically, Entergy did not adequately evaluate the ability of the cooler to remove its design basis heat load with 22 tubes plugged and the maximum allowable ultimate heat sink temperature of 85 degrees Fahrenheit ( F).

The finding is greater than minor because it is associated with the mitigating system cornerstone attributes for design control and equipment performance. It affects the mitigating system cornerstone objective to ensure the availability, reliability and capability of systems and components that are required to power safety-related loads for safe shutdown and accident mitigation. The inspectors determined the finding to be of very low safety significance using the Phase 1 SDP screening worksheet for at power situations. The finding screened to Green because it is a design deficiency confirmed not to result in a loss of function per NRC Generic Letter 91-18. This finding is documented in Entergy's corrective action program as CR-2005-02467.

Inspection Report# : [2005004\(pdf\)](#)

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## **Barrier Integrity**

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**Significance:** Apr 02, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate corrective action for SGT fan vibrations**

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for Entergy's failure to adequately evaluate and correct a condition adverse to quality involving a degrading trend in vibration for the B standby gas treatment (SGT) fan assembly. In March 2005 this resulted in 35 hours of unplanned B SGT unavailability due to emergent corrective maintenance to address increasing vibration levels.

The issue was more than minor because it was associated with the operational capability and operations/maintenance performance attributes of the Barrier Integrity cornerstone and adversely affected the cornerstone objective of providing reasonable assurance of containment integrity to protect the public from radiological releases. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the Phase 1 screening for the containment barriers cornerstone resulted in a finding of very low risk significance (Green) because the finding only represented a degradation of the radiological barrier function provided by the SGT system.

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

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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**

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

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## **Miscellaneous**

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