

# Pilgrim 1

## 4Q/2008 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:**  Dec 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Conduct a Risk Assessment for Emergent Maintenance on the High Pressure Coolant Injection System**

The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65(a)(4) for Entergy's failure to conduct a risk assessment for emergent maintenance on the High Pressure Coolant Injection (HPCI) system injection valve. Specifically, the failure to conduct a risk assessment resulted in Entergy not recognizing an increase in risk to a Yellow condition, and therefore no risk management actions were taken. Entergy entered this issue into their corrective action program. Corrective actions will include revising attachments in Entergy's Technical Specification requirements procedure to perform a risk review as a result of emergent maintenance activities.

This finding was more than minor because Entergy failed to consider the unavailability of a risk significant system where the outcome of the risk assessment would have been a change in a risk management category. The inspectors conducted an evaluation in accordance with IMC 0609, "Significance Determination Process," Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process." The finding was determined to be of very low safety significance (Green) because the Incremental Core Damage Probability Deficit for the timeframe that HPCI was removed from service was significantly less than 1E-6. The inspectors determined that this finding had a cross-cutting aspect in the area of Human Performance, Decision Making, because Entergy did not use a systematic process to make a risk-significant decision when faced with an unexpected plant condition. [H.1(a)]  
Inspection Report# : [2008005](#) (*pdf*)

**Significance:**  Dec 30, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Procedural Error Resulting in Unplanned RCIC Isolation**

A self-revealing Green non-cited violation (NCV) of TS 5.4.1, "Procedures", was identified for a procedure which resulted in an inadvertent isolation of the Reactor Core Isolation Cooling (RCIC) system. Specifically, the procedure was previously revised and a step was inadvertently placed out-of-order. The procedure incorrectly instructed technicians to remove relay contact blockers, or "boots", before clearing an isolation signal which resulted in the system isolation. Entergy entered this issue into their corrective action program. Corrective actions will include revising this procedure and reviewing other surveillance procedures that had been revised at the same time.

This finding was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone. Isolating the RCIC system affected the cornerstone objective of ensuring the availability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this finding using IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings". This finding was of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of system safety function, did not represent an actual loss of a single train system for greater than the Technical Specification allowed outage time, and was not made risk-significant because of external events. The inspectors determined that this finding had a cross-cutting aspect in the area of Human Performance, Resources, because Entergy did not ensure that

the procedure was complete and accurate. [H.2(c)]

Inspection Report# : [2008005](#) (*pdf*)

**G**

**Significance:** Jul 17, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Design Control for Switchyard Voltage Criteria**

The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that, Entergy did not perform a calculation and confirmatory test to demonstrate that the switchyard voltage used in procedures was adequate. Such a calculation and test was necessary to ensure that a spurious loss of the preferred offsite power source during transient conditions would not occur. Entergy entered this issue into their corrective action system, and demonstrated there was sufficient margin to assure operability of the preferred offsite power source.

This finding is more than minor because the deficiency represented reasonable doubt on the operability of the preferred offsite power system. The finding is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was a design deficiency confirmed not to result in a loss of the preferred offsite power source.

Inspection Report# : [2008007](#) (*pdf*)

**G**

**Significance:** Jun 17, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Corrective Actions for 'B' Battery Charger Circuit Breaker**

Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," in that, Entergy did not promptly correct deficiencies with the 'B' 125 Vdc battery charger supply circuit breaker. Specifically, Entergy did not properly evaluate and take adequate corrective actions for a condition adverse to quality associated with elevated temperatures on the circuit breaker terminals; and subsequently, the circuit breaker failed when recharging the 'B' 125 Vdc battery. Entergy entered the issue into their corrective action system, completed an operability assessment, and reviewed similar circuit breakers to ensure a similar condition did not exist.

The finding is more than minor because the degraded condition represented reasonable doubt on the operability of the 'B' 125 Vdc charger and its associated breaker. The finding is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it did not result in the loss of system safety function. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution because Entergy did not adequately evaluate and correct the condition adverse to quality, which they originally identified in January 2006 (P.1.c).

Inspection Report# : [2008007](#) (*pdf*)

**G**

**Significance:** Jun 17, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Corrective Actions in Response to an Intake De-Watering Event**

Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," in that, Entergy did not properly evaluate and take adequate corrective actions for a condition adverse to quality associated with an intake de-watering event on September 14,

2007. Specifically, a fish intrusion event resulted in a significant lowering of intake level and challenged the continued availability of the 'A' loop of salt service water (SSW). Entergy's issue prioritization, operability review, and subsequent evaluation did not adequately assess and correct the plant response relative to the safety-related SSW design and licensing bases. Entergy entered the issue into their corrective action system, implemented short-term corrective actions, and completed an operability assessment for the affected equipment.

This finding is more than minor because it is associated with the external factors attribute (loss of heat sink) for the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it did not result in the loss of system safety function. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution because Entergy did not thoroughly evaluate a condition adverse to quality, including properly classifying, prioritizing, and evaluating for operability (P.1.c).

Inspection Report# : [2008007](#) (pdf)

**Significance:**  Jun 17, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Non-Conservative Calculation for Salt Service Water Pump Minimum Flow Rate**

The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that, Entergy did not properly translate design basis parameters into specifications and procedures for the salt service water (SSW) system. Specifically, the system hydraulic analysis did not establish a system leakage limit, and the plant operating procedures allowed alignments that could have led to a condition where system leakage could have been in excess of the available margin. Entergy entered this issue into their corrective action system and instituted immediate corrective actions.

This finding is more than minor because the deficiency represented reasonable doubt on the operability of the SSW system. The finding is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was a design deficiency confirmed not to result in a loss of the SSW system.

Inspection Report# : [2008007](#) (pdf)

**Significance:**  Mar 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Risk Assessment for Emergent Maintenance on A5 Emergency Bus Undervoltage Relays**

The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50.65(a)(4) for Entergy's failure to conduct an adequate risk assessment for emergent maintenance on the A5 Emergency Bus undervoltage relays. Specifically, the inspectors noted that Entergy had downgraded an on-line risk assessment from Red to Green without a valid technical basis and did not recognize the unavailability of the automatic function of the Emergency Diesel Generator (EDG); as a result, Entergy did not evaluate or specify risk management actions.

This finding is more than minor because the risk assessment had incorrect assumptions that changed the outcome of the assessment. The inspectors conducted a screening in accordance with IMC 0609, "Significance Determination Process," Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process." The finding was determined to be of very low safety significance (Green) because the Incremental Core Damage Probability Deficit for the timeframe that the relays were removed from service was significantly less than 1E-6 due to the short amount of time the EDG was unavailable in the automatic mode and the reasonable assurance that operators could manually tie the EDG to the bus in the event of a Loss Of Offsite Power.

This finding has a cross-cutting aspect in the area of Human Performance, Decision Making, because Entergy did not use a systematic process to make a risk-significant decision, when faced with an unexpected plant condition. [H.1(a)]

Inspection Report# : [2008002](#) (pdf)

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## Barrier Integrity

**Significance:**  Apr 03, 2008

Identified By: NRC

Item Type: FIN Finding

### **B.5.b Phase 2 and 3 Mitigating Strategy**

This finding, affecting the Barrier Integrity Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has a cross-cutting aspect in the area of Human Performance (Resources). [H.2(c)]. See inspection report for more details.

Inspection Report# : [2008006](#) (*pdf*)

**Significance:**  Apr 03, 2008

Identified By: NRC

Item Type: FIN Finding

### **B.5.b Phase 2 and 3 Mitigating Strategy**

This finding, affecting the Barrier Integrity Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has a cross-cutting aspect in the area of Human Performance (Resources). [H.2(c)]. See inspection report for more details.

Inspection Report# : [2008006](#) (*pdf*)

**Significance:**  Apr 03, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **B.5.b Phase 2 and 3 Mitigating Strategy**

This finding, affecting the Barrier Integrity Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has a cross-cutting aspect in the area of Human Performance (Resources). [H.2(c)]. See inspection report for more details.

Inspection Report# : [2008006](#) (*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

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

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