

# Pilgrim 1

## 1Q/2014 Plant Inspection Findings

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### Initiating Events

**Significance:**  Oct 03, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inappropriate Fatigue Rule Waivers**

The inspectors identified a Green non-cited violation of 10 CFR 26.207(a) for Entergy's failure to issue waivers that were necessary to mitigate or prevent conditions adverse to safety, and only to address circumstances that could not have been reasonably controlled. Specifically, Entergy issued multiple fatigue waivers during planned and forced outages that were determined to be inappropriate based on plant conditions. Additionally, the inspectors identified other waivers of the fatigue rule that Entergy issued during non-outage periods that were inappropriate based on plant conditions. Entergy's immediate corrective action was to enter this issue into their corrective action program as condition reports CR-PNP-2013-06706 and CR-PNP-2013-06707 for further evaluation.

The inspectors determined that Entergy's failure to grant waivers in accordance with regulatory requirements was a performance deficiency that was within Entergy's ability to foresee and correct. This performance deficiency is more than minor because it was associated with the human performance attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the resulting increased likelihood of human error could adversely affect the station's defense-in-depth. Additionally, the finding was similar to IMC 0612, Appendix E, "Examples of Minor Issues," Example 9.a and is more than minor because this inappropriate use of work hour control waivers was not an isolated incident (e.g., one or two instances). The finding has been reviewed by NRC management in accordance with IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria." The violation was determined to be of very low significance because no significant events or human performance issues were directly linked to personnel fatigue as a result of the hours worked. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Entergy did not thoroughly evaluate problems such that the resolutions address causes and extent conditions. Specifically, Entergy previously identified that waivers were inappropriately granted for conditions that were not necessary to mitigate or prevent conditions adverse to safety. However, because the previous evaluations were limited in scope and focus, Entergy did not develop corrective actions to address the deficient condition. [P.1(c)]

Inspection Report# : [2013008](#) (*pdf*)

**Significance:**  Jun 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Follow Procedures Results in Loss of Shutdown Cooling**

Green. A self-revealing NCV of Technical Specification (TS) 5.4.1, "Procedures," was identified for operators not implementing procedures to supply safety-related alternate electrical power to shutdown cooling valves during shutdown cooling operation. Specifically, because operators did not perform all applicable steps in a procedure, a loss of shutdown cooling resulted when operators were shifting power supplies for the 'B' train shutdown cooling suction

and discharge valves on May 2, 2013. Corrective actions included restoring shutdown cooling following a prompt investigation of the event. Entergy has captured this event in their corrective action program (CAP) as CR-PNP-2013-3457.

The performance deficiency is more than minor because it affects the objective of the Initiating Events cornerstone to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The unavailability of shutdown cooling for five hours challenged the safety function of decay heat removal (DHR) supplied by the residual heat removal (RHR) system. A review of IMC 0612, Appendix E, "Examples of Minor Issues," found no more than minor examples that applied. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding required further review using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process," because the issue affected the safety of the reactor during a refueling outage. The inspectors determined that this finding was of very low safety significance (Green), using IMC 0609, Appendix G, Checklist 7, "BWR Refueling Operation with Reactor Coolant System (RCS) Level >23'." This determination did not require a further phase 2 or phase 3 analysis in that it did not increase the likelihood of a loss of RCS inventory; did not result in the loss of RCS level instrumentation; did not degrade Entergy's ability to terminate a leak path or add RCS inventory; and did not degrade Entergy's ability to recover DHR once it was lost. In addition, a loss of thermal margin did not occur since the change in RCS temperature resulted in less than 20 percent of the temperature margin to boil. The inspectors determined that this finding had a cross-cutting aspect in the Human Performance area, Work Practices component, because personnel did not follow procedures [H.4(b)]. (Section 1R20)

Inspection Report# : [2013003](#) (*pdf*)

## Mitigating Systems

**Significance:**  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inadequate Procedure for Determining Operability of the Shutdown Transformer**

Green. The inspectors identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that Entergy did not correctly translate the design basis into procedures. Specifically, as of February 26, 2014, procedure 2.4.A.23 did not provide correct information for determining operability of the Shutdown Transformer (SDT) when the SDT is energized from one of its alternate sources. Entergy entered this issue into their corrective action program (CR-PNP-2014-00861).

The inspectors determined that Entergy's failure to provide adequate control for determining operability of the SDT was a performance deficiency that was reasonably within Entergy's ability to foresee and prevent. The performance deficiency was determined to be more than minor because it was associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, Appendix A, the inspectors determined that the finding was very low safety-significance because this finding did not represent an actual loss of function of the SDT for greater than its Technical Specification allowed outage time. The finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, in that, Entergy personnel did not thoroughly evaluate the problems, which included understanding the results of the calculation and subsequently translating those results into the operating procedure. (P.2, IMC 0310) (Section 4OA2.1.b.1)

Inspection Report# : [2014002](#) (*pdf*)

**Significance:** G Dec 31, 2013

Identified By: NRC

Item Type: FIN Finding

**Failure to Perform Plant Level Maintenance Rule Monitoring**

Green. The inspectors identified a finding (FIN) associated with licensee procedure EN-DC-204, “Maintenance Rule Scoping and Basis”, because Entergy did not perform plant level monitoring in accordance with the criteria set forth therein. Specifically, the plant level performance criteria of Unplanned Scrams and Unplanned Power Changes were not monitored as Maintenance Rule performance criteria. The licensee entered this issue into its corrective action program (CR-PNP-2013-8114)

The performance deficiency is more than minor because it is associated with the equipment performance attribute of the Initiating Events cornerstone and the associated cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, failure to monitor the plant against the required performance criteria and subsequent failure to evaluate for functional failures can result in the inability to identify systems that are not effectively being maintained and may consequently hinder the implementation of corrective actions to improve systems and the capability of systems that can contribute to events that upset plant stability. In accordance with IMC 0609.04, “Initial Characterization of Findings”, and Exhibit 2 of IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power”, issued June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent an actual loss of system safety function, did not represent an actual loss of safety function of a single train or two separate safety systems for greater than the TS allowed outage time, and did not represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant in accordance with Entergy’s maintenance rule program. The finding has a cross cutting aspect in the area of human performance, resources component, because Entergy did not ensure that procedures are available and adequate to assure nuclear safety. Specifically, Entergy did not ensure that Maintenance Rule Bases Documents were updated to include all monitoring criteria requirements set forth in EN-DC-204. [H.2(c)]. (Section 1R12)

Inspection Report# : [2013005](#) (*pdf*)

**Significance:** G Sep 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Complete a Design Control Review for the SBO Fuel Oil Transfer System in a Timely Manner**

Green. The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” because Entergy did not complete a design control review for the station blackout (SBO) fuel oil transfer system in a timely manner. Entergy extended the corrective action due date out to greater than a year from the discovery of the original condition. Entergy has increased the priority of this design review and captured this issue in condition report CR-PNP-2013-6906.

The performance deficiency was determined to be more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone, and adversely affected the cornerstone objective to ensure the capability of systems that respond to initiating events to prevent undesirable consequences. The failure to complete a timely design review of a credited support system for the onsite power safety function further extends the vulnerability of the safety function if the design review determines the system is inadequate. The inspectors used IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” and IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening.” The finding was determined to be of very low safety significance (Green) because the finding was a design deficiency that did not result in the loss of system safety function or a loss of safety function of a single train for greater than its Technical Specification allowed outage time. The finding has a cross-cutting

aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Entergy did not take appropriate corrective actions to address a safety issue in a timely manner, commensurate with its safety significance. [P.1(d)]. (Section 40A2)

Inspection Report# : [2013004](#) (pdf)

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## Barrier Integrity

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## Emergency Preparedness

**Significance:**  Dec 05, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Provide Adequate Justification to Extend the 12-Month Review Frequency of the Emergency Preparedness Program**

Green. The inspectors identified a non-cited violation of 10 CFR Part 50.54(t)(1), Conditions of Licenses, for failure to provide adequate justification to extend the review of the emergency preparedness program elements. Specifically, Entergy did not base its justification on an adequate assessment against a set of performance indicators.

The failure to provide justification based on an adequate assessment against performance indicators to exceed the 12-month interval to perform a review of its emergency preparedness program elements is a performance deficiency within Entergy's ability to foresee and correct. The finding is more than minor because it affected the emergency response organization (ERO) readiness, facilities and equipment, procedure quality, and ERO performance attributes of the emergency preparedness cornerstone. This finding is of very low safety significance (Green) because it was a failure to comply with NRC requirements and was not associated with the planning standards of 10 CFR 50.47(b), Emergency Plans. Entergy entered this issue into its corrective action system as condition report CR-PNP-2013-07463. This finding was assigned a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because Entergy did not thoroughly evaluate the issue identified in 2009 and did not implement corrective actions to address the issue [P.1(c)]. (Section 1EP5)

Inspection Report# : [2013005](#) (pdf)

**Significance:**  Oct 03, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Maintain Station Meteorological Towers**

The inspectors identified a Green non-cited violation of 10 CFR Part 50.54(q)(2) because Entergy did not ensure that the Pilgrim Emergency Plan met the planning standards in 10 CFR 50.47(b). Specifically, on various occasions in 2012 and 2013, Pilgrim failed to maintain both meteorological towers as necessary to support emergency response. Entergy entered this issue into their corrective action program as condition report CR-PNP-2013-06829 for further evaluation. Additionally, as of the date of this inspection, the 220' meteorological tower was functional and the National Weather Service is still available as an alternate data source.

The inspectors determined that failure to maintain the 160' and 220' meteorological towers resulting in both towers being out of service concurrently for three separate periods in 2012 and 2013 was a performance deficiency that was within Entergy's ability to foresee and correct. This performance deficiency is more than minor because it is associated with the facilities and equipment attribute of the Emergency Preparedness cornerstone and adversely affected the cornerstone objective of ensuring the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. In accordance with IMC 0609, Appendix B, "Emergency Preparedness Significance Determination Process," Table 5.8-1, the inspectors determined the finding to be of very low safety significance (Green) because the planning standard function was degraded. Specifically, a significant amount of equipment necessary to implement the emergency plan was not functional to the extent that an emergency response organization member could not perform assigned functions, in the absence of compensatory measures. However, Pilgrim was able to make adequate dose assessments at all times using the National Weather Service to obtain necessary data. This finding has a crosscutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Pilgrim did not take appropriate corrective actions to address safety issues and trends in a timely manner. Specifically, the station did not take timely corrective actions to correct deficiencies associated with both meteorological towers resulting in both towers being simultaneously non-functional on multiple occasions. [P.1(d)]

Inspection Report# : [2013008](#) (*pdf*)

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## Occupational Radiation Safety

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## Public Radiation Safety

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## Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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## Miscellaneous

**Significance:** N/A Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Maintain Continous Communications**

SL IV NCV against 73.55(j) and 73.55(k) which, respectively, require that all on-duty security force personnel shall be capable of maintaining continuous communication with an individual in each alarm station; and that licensees provide armed response personnel to carry out armed response duties within predetermined time lines specified by the site protective strategy.

In this case, a security officer who was assigned as an armed responder while working a night shift starting on April 21, 2013, took deliberate actions that caused him to become inattentive to duty.

Inspection Report# : [2013005](#) (*pdf*)

**Significance:**  Oct 03, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Provide an Adequate Detection and Assessment System**

The inspectors identified a Green non-cited violation of 10 CFR 73.55(i)(3)(vii).

This finding has a cross-cutting aspect in the area of Human Performance, Decision Making, because Entergy did not use conservative assumptions in decision making and adopt a requirement to demonstrate a proposed action was safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disprove an action.

Inspection Report# : [2013008](#) (*pdf*)

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