

## Pilgrim 1

### 3Q/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*)

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#### 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 40A2.1.b.1)

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

**Significance:**  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*)

## Barrier Integrity

**Significance:**  Jun 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Manage a Yellow Risk Condition for Unavailable Torus Vent Valve**

The inspectors identified a Green NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50.65 paragraph (a) (4) because Entergy did not identify and manage risk for emergent maintenance on primary containment isolation valves (PCIVs). Specifically, an incorrect risk assessment resulted in Entergy not recognizing an increase in risk to a Yellow condition, and therefore no risk management actions were taken. Entergy has captured this issue in condition report (CR)-PNP-2014-2007, has corrected the inadequate risk assessment, and has initiated an apparent cause evaluation (ACE) to determine causes and appropriate corrective actions.

The performance deficiency was more than minor because if left uncorrected the failure to recognize risk and take appropriate risk management actions has the potential to lead to more significant safety concerns. Moreover, a review of IMC 0612, Appendix E, "Minor Examples," identified that Section 7, "Maintenance Rule," Example e, reflected a similar more than minor example, in that the outcome of the overall elevated plant risk put the plant into a higher risk management category and thereby required additional risk management actions. In accordance with IMC 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," issued May 19, 2005, the inspectors determined that this finding is of very low safety significance (Green) because the Incremental Core Damage Probability Deficit for the duration of the activity was less than 1.0 E-6 per year (approximately 1.29 E-7 per year). This finding has a cross-cutting aspect in the area of Human Performance, Consistent Process, because when faced with the requirement to perform emergent, unscheduled maintenance, Entergy did not use a consistent, systematic approach to make decisions, and did not incorporate appropriate risk insights. Specifically, while Entergy had the tools and processes in place to assess risk for emergent conditions, individuals did not consistently use this process, and therefore did not recognize the elevated risk condition.

Inspection Report# : [2014003](#) (*pdf*)

**Significance:**  Jun 30, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Comply with TS Required Actions for Inoperable PCIV**

The inspectors identified a Green NCV of Technical Specification (TS) 3.7.A, "Primary Containment," because Entergy failed to comply with the TS-required actions for inoperable PCIVs. Specifically, while maintenance was being performed on an inoperable automatic PCIV, Entergy failed to either isolate and deactivate at least one containment isolation valve in the same line, or to complete an orderly shutdown to the Cold Shutdown condition within 24 hours. Entergy has captured this issue in CR-PNP-2014-2008, and has assigned corrective actions to update the Pilgrim TS bases document to provide additional guidance on acceptable methods of PCIV isolation.

The performance deficiency is more than minor because it is associated with the configuration control attribute of the Barrier Integrity cornerstone, and adversely affected the associated cornerstone objective to provide reasonable assurance that physical design barriers (i.e. containment) protect the public from radionuclide releases caused by accidents or events. Specifically, Entergy's failure to close and deactivate a valve in the same line as the inoperable PCIV as required by TS did not ensure the operability of the primary containment. In accordance with IMC 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings at Power," effective July 1, 2012, the inspectors determined that this finding is of very low safety

significance (Green) because it did not represent an actual open pathway in the physical integrity of reactor containment, containment isolation system, or heat removal components. This finding has a cross-cutting aspect in the area of Human Performance, Conservative Bias, because Entergy did not use decision-making practices that emphasize prudent choices over those that are simply allowable, or in this case, those that are perceived to be allowable. Specifically, Entergy's reliance on the design characteristics of the PCIVs to meet the TS requirement, while refraining to take additional measures to ensure the valves remained closed in the case of personnel error or equipment malfunction, was not conservative.

Inspection Report# : [2014003](#) (*pdf*)

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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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