

# Pilgrim 1

## 3Q/2012 Plant Inspection Findings

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### Initiating Events

**Significance:**  Sep 30, 2012

Identified By: NRC

Item Type: FIN Finding

#### **Inadequate Processing of Work Package Results in Reactor Scram**

Green. A finding of very low safety significance (Green) was identified for personnel not adequately classifying work in regards to processing an emergent work order. Specifically, personnel classified work on a reach rod position indication for valve 1-HO-163, Steam Jet Air Ejector (SJAE) steam supply valve, as “minor” maintenance which resulted in the failure to identify and correct the reach rod indicator and position. This resulted in a degraded vacuum during a power maneuver and a subsequent reactor scram. Entergy entered this issue in the corrective action program (CR-PNP-2012-2304).

The finding was determined to be more than minor because it was associated with the Configuration Control (i.e., Operating Equipment Lineup) attribute of the Initiating Events cornerstone, and adversely affected the cornerstone’s objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors used IMC 0609.04, “Phase 1 – Initiating Screening and Characterization of Findings” and IMC 0609 Appendix A, Exhibit 1, “Initiating Events Screening.” The finding was determined to be of very low safety significance (Green) because although the performance deficiency did result in a reactor scram, it did not cause a reactor scram combined with the loss of mitigating equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. This finding has a cross-cutting aspect in the Human Performance cross-cutting area, Work Control, because Entergy did not appropriately plan and coordinate the repair of the SJAE steam supply valve by incorporating the operational impact of the work activity consistent with nuclear safety. [H.3 (b)] (Section 4OA3)

Inspection Report# : [2012004](#) (*pdf*)

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### Mitigating Systems

**Significance:**  Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Verify the Adequacy of the Design of MCC-B18 with Respect to Internal Flooding**

The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control”, because Entergy did not verify the adequacy of the design of the Motor Control Center (MCC) B-18 enclosure. Specifically, Entergy had not previously evaluated the susceptibility of MCC B-18 to internal flooding from a potential pipe break by the use of calculational methods or by the performance of design reviews. Entergy entered this issue in the corrective action program (CR-PNP-2012-1351).

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's objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. 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 and did not represent a loss of system and/or function or the loss of a single train for greater than its Technical Specification outage time. The finding does not have a cross-cutting aspect since the verification of the MCC B18 design is not indicative of current licensee performance. Entergy's current design change procedures require an evaluation of flooding vulnerabilities for new modifications. (Section 1R06)

Inspection Report# : [2012003](#) (*pdf*)

**Significance:**  Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Scope the Rod Worth Minimizer into the Maintenance Rule**

The inspectors identified an NCV of very low safety significance (Green) of 10 CFR Part 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," because Entergy did not include the Rod Worth Minimizer (RWM) system into the scope of Maintenance Rule (MR) systems. Specifically, Entergy did not include the RWM system into the scope of the MR monitoring program as required by 10 CFR 50.65 (b)(2)(i) as a non-safety related system that is relied upon to mitigate accidents or transients. Entergy entered this issue in the corrective action program (CR-PNP-2012-0394).

The inspectors performed a review of IMC 0612, Appendix E, "Examples of Minor Issues," and determined the issue was more than minor because it was similar to example 7.d; in that, the RWM system was not within the scope of the Maintenance Rule and that equipment performance problems were such that effective control of performance could not be demonstrated. The finding was also determined to be more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and affected the availability of the RWM to provide its mitigation function for a control rod drop accident (CRDA). This finding had a cross-cutting aspect in the Problem Identification and Resolution cross-cutting area, Self Assessment component, because previous assessments performed by Entergy did not include Maintenance Rule scoping attributes nor did they identify scoping issues such as the RWM system. [P.3(a)] (Section 1R12)

Inspection Report# : [2012002](#) (*pdf*)

**Significance:**  Dec 31, 2011

Identified By: NRC

Item Type: FIN Finding

**Written NRC Biennial Written Examinations did not meet Qualitative Standards**

Green. The inspectors identified a Green finding of 10 CFR 55.59, "Requalification," based on a determination that greater than 20 percent of the biennial requalification written exam questions administered to licensed operators during weeks three and four of the 2010 examination cycle were unacceptable. Entergy entered this issue into the corrective action program (CR-PNP-2011-04561).

The inspectors determined that the finding was more than minor because it was associated with the Human Performance attribute of the Mitigation 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 (i.e., core damage). Specifically, the finding affected the quality and level of difficulty of biennial written exams which potentially impacted Entergy's ability to appropriately evaluate licensed operators. The risk importance of this issue was evaluated using IMC 0609, Appendix I, "Licensed Operator Requalification Significance Determination

Process (SDP).” Appendix I was entered using the number of written exam questions that did not meet the qualitative standard for the written exam questions. The qualitative standard used by the inspectors is defined in NUREG-1021, Rev. 9, ES-602, Attachment 1, “Guidelines for Developing Open-Reference Examinations,” and Appendix B, “Written Examination Guidelines.” Since 28.6 percent of the questions reviewed did not meet the guidance, Block 16 of Appendix I applied, specifically, “Were more than 20 percent of the written questions sampled by the inspectors unacceptable?” Based on this screening criteria, the finding was characterized by the SDP as having very low safety significance (greater than 20 percent unacceptable), or Green. A review of the cross-cutting aspects was performed and no cross-cutting aspect was identified that would be considered a contributor to the cause of the finding. (Section 1R11)

Inspection Report# : [2011005](#) (*pdf*)

**Significance:** TBD Dec 31, 2011

Identified By: NRC

Item Type: AV Apparent Violation

**Licensed Operators Stood Watch Without Being Medically Qualified**

TBD. The inspectors identified an apparent violation (AV) of Title 10 of the Code of Federal Regulations (10 CFR) 55.53 and 10 CFR 55.21 related to Entergy’s medical examinations of licensed operators. Specifically, at various times over a period of almost four years, ten operators did not meet certain medical requirements (for stamina and/or blood pressure) for performing NRC-licensed operator activities, and the operators continued to perform NRC-licensed activities. Additionally, Entergy did not perform complete medical testing of its licensed operators, in that five of those licensed operators had not been administered stamina tests for more than two years and therefore did not complete their NRC-required biennial medical exam. Immediately after the NRC identified the issue, Entergy restricted operators from watch until they could pass the requirements of their medical testing. Entergy entered this issue into their corrective action program (CR-PNP-2011-04554).

The inspectors determined that Entergy’s failure to ensure that licensed operators met the license conditions associated with medical testing prior to performing license activities was a performance deficiency that was within Entergy’s ability to foresee and correct and should have been prevented. The inspectors determined that Traditional Enforcement applies, as the issue had the potential to impact the NRC's ability to perform its regulatory function because the NRC relies upon the accurate certification by the licensee’s medical examiner to ensure all licensed operators meet the medical conditions of their license. Specifically, ten operators had not taken the stamina test during their annual physical, but were certified by the medical examiner and licensee as being fit to safely perform their watch-standing duties. Additionally, five of those operators had not taken the stamina test during their biennial physical, but were certified by the medical examiner and licensee as being fit to safely perform their watch-standing duties. Lastly, an individual who had not passed their blood pressure examination, and required a license condition to take medication, was placed back on watch-standing duty without such a license condition. The performance deficiency was screened against the Reactor Oversight Process (ROP) per the guidance of Inspection Manual Chapter (IMC) 0612, Appendix B, “Issue Screening.” No associated ROP finding was identified and no cross-cutting aspect was assigned. These issues are being characterized as an apparent violation in accordance with the NRC’s Enforcement Policy, and its final significance will be dispositioned in separate future correspondence. (Section 1R11)

Inspection Report# : [2011005](#) (*pdf*)

**Significance:** TBD Dec 31, 2011

Identified By: NRC

Item Type: AV Apparent Violation

**Entergy did not Provide Complete and Accurate Medical Information for Licensed Operator Renewal Applications**

TBD. The inspectors identified an AV of 10 CFR 50.9, “Completeness and Accuracy of Information,” related to Entergy’s medical examinations of licensed operators. Specifically, Entergy did not provide information to the NRC

that was complete and accurate in all material respects, in that Entergy submitted two NRC licensed operator renewal applications which certified that the applicants met the medical requirements for license renewal when in fact they did not complete the required stamina tests. Entergy entered this issue into their corrective action program (CR-PNP-2011-04554).

The inspectors determined that Entergy's failure to provide complete and accurate information to the NRC was a performance deficiency that was within Entergy's ability to foresee and correct and should have been prevented. The inspectors determined that Traditional Enforcement applies, as the issue had the potential to impact the NRC's ability to perform its regulatory function. Specifically, Entergy did not provide information to the NRC that was complete and accurate in all material respects, in that although Entergy had not administered complete medical examinations of licensed operators in accordance with American National Standards Institute/American Nuclear Society (ANSI/ANS) 3.4-1983 (because it had not conducted stamina testing), it submitted two NRC Form 396s for renewal of operator licenses which certified that the applicants met the medical requirements of ANSI/ANS 3.4-1983. Subsequently, the NRC made a licensing decision based on this information that was not complete and accurate in all material respects. The performance deficiency was screened against the ROP per the guidance of IMC 0612, Appendix B, "Issue Screening." No associated ROP finding was identified and no cross-cutting aspect was assigned. This issue constitutes an apparent violation in accordance with the NRC's Enforcement Policy, and its final significance will be dispositioned in separate future correspondence. (Section 1R11)

Inspection Report# : [2011005](#) (pdf)

**Significance:** TBD Dec 31, 2011

Identified By: NRC

Item Type: AV Apparent Violation

**Entergy did not Notify the NRC Within 30 Days of Discovering Changes in Medical Conditions**

TBD. The inspectors identified an AV of 10 CFR 50.74, "Notification of Change in Operator or Senior Operator Status." Specifically, Entergy did not notify the NRC within 30 days of discovering a change in medical condition for two licensed operators. Subsequently, Entergy submitted notifications for both operators on November 10, 2011, and entered the issue into their corrective action program (CR-PNP-2011-04554).

The inspectors determined that Entergy's failure to notify the NRC within 30 days of discovering the change in medical condition for two licensed operators was a performance deficiency that was within Entergy's ability to foresee and correct and should have been prevented. The inspectors determined that Traditional Enforcement applies, as the issue had the potential to impact the NRC's ability to perform its regulatory function because if a licensed operator has a change in medical condition, the NRC may need to perform a review for consideration of a licensing action. Specifically, Entergy had not notified the NRC within 30 days of learning of a change in medical condition for two licensed operators for which a license condition was required. The performance deficiency was screened against the ROP per the guidance of IMC 0612, Appendix B, "Issue Screening." No associated ROP finding was identified and no cross-cutting aspect was assigned. This issue constitutes an apparent violation in accordance with the NRC's Enforcement Policy, and its final significance will be dispositioned in separate future correspondence. (Section 1R11)

Inspection Report# : [2011005](#) (pdf)

**Significance:** SL-IV Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Entergy Incorrectly Credited Operators Proficiency Watch-Standing Experience and the Operators Subsequently Stood Watch**

SL-IV. The inspectors identified a Severity Level IV NCV of 10 CFR 55.53 (e) and (f), "Conditions of Licenses," because Entergy incorrectly credited two individuals for proficiency watch-standing experience and then these operators subsequently stood watch without meeting the minimum proficiency requirements necessary to maintain an

active license. Entergy implemented immediate corrective action that included discontinuing the practice of crediting the emergency core cooling system (ECCS) and Extra Balance of Plant (BOP) positions for proficiency. Entergy entered this issue into their corrective action program (CR-PNP-2011-04649).

The inspectors determined that Entergy incorrectly credited two individuals for proficiency watch-standing experience and then these operators subsequently stood watch in the control room. This error constitutes a performance deficiency that was within Entergy's ability to foresee and correct and should have been prevented. The inspectors determined that Traditional Enforcement applies, as the issue had the potential to impact the NRC's ability to perform its regulatory function because if a licensed operator fails to meet the conditions of their license, the NRC may need to perform a review for consideration of a licensing action, and if the information regarding an individual's qualifications is not accurately presented, the NRC could potentially make an incorrect licensing decision based on the inaccurate information. Specifically, Entergy did not ensure that two reactor operator (RO) licensed individuals maintained their RO licenses in an active status in the 2nd quarter 2011, prior to standing RO watches in the 3rd quarter 2011 which violated a license condition as specified in 10 CFR 55.53 (e) and (f). The performance deficiency was screened against the ROP per the guidance of IMC 0612, Appendix B, "Issue Screening." No associated ROP finding was identified and no cross-cutting aspect was assigned. This issue is similar to violation example 6.4.c.1(c) in the NRC Enforcement Policy for a Severity Level III violation because it involves noncompliance with a condition stated on an individual's license. However, since there were no adverse impacts to nuclear safety, the NRC has determined that this issue constitutes a Severity Level IV NCV in accordance with the NRC's Enforcement Policy. (Section 1R11)

Inspection Report# : [2011005](#) (*pdf*)

**Significance:**  Oct 06, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Evaluation of the Adequacy of the 4160 Volt Emergency Bus 95% Voltage Alarm and Load Shed Relay Design**

Green: The team identified a finding of very low safety significance involving a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, Design Control, because Entergy had not verified the adequacy of the 4160 volt emergency bus 95% voltage alarm/load shed relay design regarding the potential for multiple starts of the salt service water (SSW) and reactor building closed cooling water (RBCCW) pump motors. Additionally, Entergy had not verified the adequacy of design with respect to the ability of the SSW pump motors to restart following a load shed of the motors without tripping the motor control center (MCC) thermal overload (TOL) relays at design basis degraded voltage conditions. Entergy entered the issue into their corrective action program and implemented measures to bypass the SSW pump motor TOL relay motor trips based on their initial review of TOL margin. The team determined this to be a conservative action which ensured under all conditions including degraded voltage, that the SSW pump motors would not be inadvertently tripped due to TOL margin concerns.

The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team evaluated the finding in accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of findings." The finding was determined to be of very low safety significance because it was a design deficiency confirmed not to result in a loss of operability. This finding was not assigned a cross-cutting aspect because it was a historical design issue not indicative of current performance. (Section 1R21.2.1.1)

Inspection Report# : [2011007](#) (*pdf*)

**Significance:**  Oct 06, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Test Control of Safety Related Batteries**

Green: The team identified a finding of very low safety significance involving a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XI, Test Control, because Entergy did not adequately perform battery discharge testing and assure that the battery discharge test procedures incorporated requirements contained in applicable design documents for multiple cycles of Technical Specification (TS) required surveillance testing of the station batteries. Specifically, test results have been negatively impacted because of improper use of battery test equipment and tests had errors with load profiles. Entergy entered these issues into the corrective action program to evaluate and correct the deficiencies in the battery testing program and ensure any future testing requirements are met.

The performance deficiency was determined to be more than minor because it was associated with the procedure quality attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team evaluated the finding in accordance with IMC 0609, Significance Determination Process, Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings." The team determined the 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, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding had a cross-cutting aspect in the area of Human Performance, Resources Component, because Entergy did not ensure that complete, accurate, and up-to-date procedures were available and adequate to assure nuclear safety. Specifically, the battery discharge test procedures did not ensure that capacities were correctly measured and service test profiles were correctly translated from the battery design calculations. (IMC 0310, Aspect H.2(c)) (Section 1R21.2.1.2)

Inspection Report# : [2011007](#) (*pdf*)

**Significance:**  Oct 06, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Evaluaton of the Affect of Non Class I Equipment Internal Flooding on Redundant Safety Related Equipment**

Green: The team identified a finding of very low safety significance involving a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, Design Control, because Entergy did not verify the adequacy of the design with respect to ensuring that safety-related equipment would be adequately protected from a postulated flood originating in the turbine building. Specifically, Entergy did not correctly evaluate a failure of seawater system piping or equipment that could challenge the doors separating the turbine building from the reactor building auxiliary bay, which would require timely operator identification and action to secure the seawater pumps to prevent the common mode failure of redundant safety-related components. Entergy entered the issue into their corrective action program, evaluated the immediate operability of systems potentially affected by the postulated flooding scenario, and provided interim guidance to operators.

The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team evaluated the finding in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and completed a Phase 3 risk evaluation using the Pilgrim Standardized Plant Analysis Risk (SPAR) model, Revision 8.15 and SAPHIRE 8. Based upon the Phase 3 evaluation, the finding was determined to be of very low safety significance. The finding was not assigned a

cross-cutting aspect because it was a historical design issue not indicative of current performance. (Section 1R21.2.2.3)

Inspection Report# : [2011007](#) (*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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## **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**

Last modified : November 30, 2012