Pilgrim 1
2Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2016
Identified By: NRC
Item Type: FIN Finding
DRAFT: Inadequate Design Verification of the Traveling Screens System
DRAFT: Green. A Green self-revealing finding was identified for the inadequate design verification of the travelling screens system in accordance with EN-DC-149. Specifically, Pilgrim replaced travelling screens C and D without identifying that the replacement shear pins installed were not adequately sized, leading to a 50% rapid reduction in power. The licensee entered the finding into the corrective action program as Condition Report CR-2016-3202. Furthermore, Entergy took corrective actions to install the modified shear pin assembly in the C and D travelling screens, revise system drawings to more clearly depict the changes made per FRN 85-80C-26, and initiate an apparent cause evaluation.

The inspectors determined that Entergy did not perform an adequate design verification of the travelling screens system in accordance with EN-DC-149. This is a performance deficiency that was reasonably within Entergy's ability to foresee and correct and should have been prevented. Specifically, Entergy's review and acceptance of vendor fabrication drawings did not identify that the shear pins to be installed were inadequately sized, resulting in a reduced loading capacity of the traveling screens. This finding is more than minor because it is associated with the Initiating Events cornerstone attribute of Design Control and affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure of the C and D travelling screens shear pins resulted in an unplanned 50% reduction in power. In accordance IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors determined that this finding was of very low safety significance (Green) because the finding did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors determined that the finding had a cross-cutting aspect in Human Performance, Avoid Complacency, because Entergy did not recognize and plan for the possibility of mistakes, latent issues, and inherent risk. Specifically, Pilgrim did not identify that vendor supplied documentation and part numbers did not match Pilgrim's updated documentation. [H.12] (Section)
Inspection Report# : 2016002 *(pdf)*

Significance: G Dec 31, 2015
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Inadequate Design Control of MSIV Nitrogen Supply Line Support leads to Scram
A self-revealing Green NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50, Appendix B, Criterion III, "Design Control," was identified because Entergy did not use the correct work planning and design controls to repair the support for the nitrogen supply line for the 1C inboard main steam isolation valve (MSIV). Specifically, inadequate design controls led to a failed horizontal unistrut support for the nitrogen supply line to the 1C MSIV, resulting in the header resting on the main steam line. This caused vibration-induced cyclic failure of the nitrogen supply line, closure of 1C MSIV, and a plant scram. The damaged line was modified and repaired using an additional unistrut for support as determined by the engineering change process. Entergy entered the issue into the corrective

action program (CAP) under condition report (CR) 2015-07285.

This finding is more than minor because it is associated with the Initiating Events cornerstone attribute of equipment performance and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure of the pneumatic supply header support resulted in a plant scram due to the vibration induced cyclic failure of the nitrogen supply line and subsequent closure of 1C MSIV. In accordance with IMC 0609.04 and Exhibit 1 of IMC 0609, Appendix A, the inspectors determined that this finding was of very low safety significance (Green) because the finding did not involve the complete or partial loss of a support system that contributes to the likelihood of, or cause, an initiating event and affect mitigation equipment. The inspectors determined this finding does not have a cross-cutting aspect because the performance deficiency occurred in 2001 and is not indicative of current performance.
Inspection Report# : 2015004 *(pdf)*

Significance: G Aug 20, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Procedures for Placing Main Turbine in Service
The inspectors identified a self-revealing Green non-cited violation of Technical Specification 5.4.1, "Procedures," because Entergy did not provide adequate procedures in that appropriate operator actions to recover systems and components important to safety were not included within operating procedures 2.1.1, "Startup from Shutdown," and 2.2.93, "Main Condenser Vacuum System," as well as abnormal operating procedure 2.4.36, "Decreasing Condenser Vacuum." Entergy entered this issue into their corrective action program as condition report CR-PNP-2015-5197.

This finding was more than minor because it was associated with the procedure quality attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the finding using IMC 0609, Appendix A, Exhibit 1, "Initiating Events Screening Questions." The inspectors determined this finding was of very low safety significance (Green) because it did not cause a loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. This finding had a cross-cutting aspect in the area of Human Performance, Design Margins, because Entergy did not operate equipment within design margins. Specifically, Entergy staff's lack of awareness of the limitations of offgas system during startup and while placing the main turbine in service resulted in operators establishing conditions that were outside those limitations. [H.6]
Inspection Report# : 2015010 *(pdf)*

Mitigating Systems

Significance: G Jun 29, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify and Correct Degraded SSW Pump Discharge Piping Supports that Called into Question the Operability of Both SSW Loops)
Green. The team identified a violation of Title 10 of the Code of Federal Regulations (10 CFR) 50, Appendix B, Criterion XVI, "Corrective Action," because Entergy did not promptly identify and correct a condition adverse to quality. Specifically, Entergy did not identify degraded salt service water (SSW) pump discharge piping supports that called into question the operability of both SSW loops. Entergy's short-term corrective actions included replacing

support bracket H29-1-9SG, repairing SSW support H29-1-11SG, refurbishing several corroded SSW supports, and implementing a permanent plant modification to restore the 'D' SSW pump to an operable condition.

The finding is considered more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone's objective of ensuring the reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The team evaluated the significance of this finding using IMC 0609, Appendix A, "The Significance Determination Process for Findings at Power," Exhibit 2, "Mitigating Systems Screening Questions." The team determined the finding screened as very low safety significance (Green) because the finding did not result in the loss of system functionality.

The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Resolution, because Entergy did not take effective corrective actions to address issues in a timely manner commensurate with their safety significance. Specifically, Entergy did not effectively resolve and correct SSW support corrosion issues identified in October 2015, including causes and extent-of-condition, in a timely manner to preclude an adverse impact on system reliability in May 2016. [P.3] (Section 1R17.2.1.b.1)
Inspection Report# : 2016007 *(pdf)*

Significance: G Jun 29, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Adequately Translate SSW Support Design Drawings into the Installation Work Orders to Ensure SSW Discharge Piping was Adequately Supported)
Green. The team documented a self-revealing violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," as Entergy failed to verify the adequacy of the design to assure that applicable regulatory requirements and the design basis were correctly translated into safety-related SSW pump discharge piping support installation instructions. Specifically, Entergy did not assure that the SSW pump discharge piping supports were installed in accordance with design drawings which called into question the operability of both SSW loops. Entergy's short-term corrective actions included implementing a permanent plant modification for the 'D' SSW pump support and temporary modifications on the 'A', 'B', and 'E' SSW pump discharge piping supports.

The finding is considered more than minor because it is associated with the design control (initial design) attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone's objective of ensuring the reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The team evaluated the significance of this finding using IMC 0609, Appendix A, "The Significance Determination Process for Findings at Power," Exhibit 2, "Mitigating Systems Screening Questions." The team determined the finding screened as very low safety significance (Green) because the finding was a design deficiency which did not result in a loss of functionality of the SSW pump supports.

This finding did not have a cross-cutting aspect because the most significant contributor of the performance deficiency occurred during initial construction and, thus, was not reflective of current Entergy performance. (Section 1R17.2.1.b.2)
Inspection Report# : 2016007 *(pdf)*

Significance: G Apr 08, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Correct a Condition Adverse to Quality Associated with the Salt Service Water System)
Green. The inspectors identified a Green NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50, Appendix

B, Criterion XVI, “Corrective Action,” because Entergy did not ensure that an identified condition adverse to quality related to maintenance work on the salt service water (SSW) pumps was corrected. Specifically, Entergy did not implement a procedure change to require installation of additional anti-rotation pins. This procedure change was specified as a corrective action in an equipment apparent cause evaluation (E-ACE) [condition report (CR)-2015-09189], and addressed the assembly of a pump component relied upon to maintain operability of the SSW system. As immediate corrective action, Entergy captured this issue in their CAP as CR-2016-02401, CR-2016-02446, and CR-2016-02454. Additionally, Entergy implemented the necessary procedure change and ensured additional anti-rotation pins were installed during the most recent rebuilds of the ‘A’ and ‘B’ SSW pumps.

The finding was 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. Specifically, the absence of additional anti-rotation pins contributed to the failure of the spider bearings, which led Entergy to declare the ‘A’ SSW pump inoperable on November 7, 2015. Absent a procedure change identified as a corrective action for this condition that required installation of additional anti-rotational pins, this vulnerability continued to exist, which could contribute to subsequent spider bearing failure, thereby rendering a SSW pump inoperable. In accordance with IMC 0609.04, “Initial Characterization of Findings,” and IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” the inspectors determined that this finding was of very low safety significance (Green) because the performance deficiency was not a design or qualification deficiency, and did not involve an actual loss of a safety function of a single train for greater than its technical specification allowed outage time. The inspectors determined that this finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Resolution, because Entergy failed to ensure that established corrective actions adequately resolved and corrected the identified issues in a manner commensurate with their safety significance. Specifically, Entergy did not ensure that the corrective action taken adequately captured the intent of the corrective action as prescribed in the E-ACE. Furthermore, four CR closeout barriers within Entergy’s CAP failed to recognize and correct the issue. [P.3] (Section 4OA4.c)

Inspection Report# : 2016009 *(pdf)*

Significance: G Jan 15, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Promptly Identify and Correct Core Spray System Leakage
The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” because Entergy did not promptly correct a condition adverse to quality for the core spray system. Specifically, though Entergy identified in March 2015 that core spray system leakage was the likely cause of voiding in the system, Entergy had not taken timely action to identify the source of the leakage and address the issue. Entergy’s immediate corrective actions included entering the issue into the CAP as CR-PNP-2016-00201 and generating a work order to repair seat leakage from the core spray test return line motor-operated valve, MO-1400-4A.

This issue is more than minor because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, an unmonitored increase in core spray system leakage could result in an unanalyzed condition where the operability of the core spray system cannot be assured. In accordance with IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” the inspectors determined the finding was of very low safety significance (Green). This finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, because Entergy did not thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, Entergy failed to fully evaluate the source of core spray system leakage identified in CR-PNP-2015-01406 because they closed out the CR to another CR with a different focus. [P.2]
Inspection Report# : 2016008 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Properly Implement Procedure Changes in accordance with TS 5.4.1a
The inspectors identified an NCV of TS 5.4.1, "Procedures," because Entergy was not adequately maintaining procedures listed in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978. Specifically, the inspectors identified several examples where Entergy staff inappropriately used Entergy procedure EN-OP-112, "Night and Standing Orders," to implement procedure changes instead of PNPS quality assurance procedure NOP98A1, "Procedure Process." Entergy entered the issue into the CAP as CR 2015-09233.

The performance deficiency was determined to be more than minor because if left uncorrected it has the potential to lead to a more significant safety concern. Specifically, the inspectors determined the issue was similar to Example 4.a of IMC 0612, Appendix E, which states that an insignificant procedure error would be more than minor if the licensee routinely failed to adhere to the applicable procedure. The inspectors evaluated the finding using IMC 0609, Attachment 4 and Appendix A. Using Exhibit 2 of Appendix A, the inspectors determined this finding was of very low safety significance (Green) because it did not involve a design or qualification deficiency, it would not lead to a potential or actual loss of system or safety functions, it did not involve the loss or degradation of equipment or a function specifically designed to mitigate a seismic, flooding, or severe weather initiating event, and it did not involve the total loss of any safety function as identified in Exhibit 4. The inspectors determined that the finding had a cross-cutting aspect in Problem Identification and Resolution, Resolution, because, contrary to station procedure requirements, the standing order (SO) process was consistently inappropriately used to implement procedure changes for degraded equipment without the required evaluations.
Inspection Report# : 2015004 *(pdf)*

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Identify the Cause of a Significant Condition Adverse to Quality
The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," when Entergy did not determine the cause of a significant condition adverse to quality (SCAQ). Specifically, a causal evaluation was not performed for a failed safety-related relay that ensured the automatic operation of the low pressure coolant injection (LPCI) system injection valves in a degraded voltage condition. Entergy replaced the failed relay and restored LPCI to an operable status on May 10, 2015. Entergy entered the issue into the CAP as CR 2015-9762.

This finding is more than minor because it is associated with the Mitigating System cornerstone attribute of equipment performance and adversely 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). The failure to identify the cause and extent of condition of the relay failure as directed by site procedures could result in repeat events which adversely affect safety system availability. In accordance with IMC 0609.04 and Exhibit 2 of IMC 0609, Appendix A, the inspectors determined that this finding was of very low safety significance (Green) because the finding did not involve the design of a mitigating structure, system, or component (SSC) or a loss of function of a train or system for greater than the technical specification (TS) allowed outage time. The inspectors determined this finding has a cross-cutting aspect in Human Performance, Procedure Adherence, because individuals did not recatergorize the CR to a higher level requiring a causal evaluation, as required by EN-LI-102 when a licensee event report (LER) was issued. The site also did not retain the failed safety-related part, as required by EN-MA-101-02.
Inspection Report# : 2015004 *(pdf)*

Significance: G Nov 19, 2015

Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Analyze Reactor Recirculation System Motor Operated Valves for the Post-fire Cold Shutdown Function
The team identified a finding of very low safety significance involving a non-cited violation of Pilgrim Operating License Condition 3.F for failure to implement and maintain all aspects of the approved Fire Protection Program. Specifically, Entergy's post fire safe shutdown analysis did not adequately evaluate system requirements necessary to achieve cold shutdown conditions when the 'A' Reactor Recirculation System motor operated valves are damaged by fire. As a result, Entergy may not have been able to establish cold shutdown within 72 hours, as required by their safe shutdown analysis and regulatory requirements for this scenario. Entergy entered this issue into their corrective action program as condition reports CR-PNP-2015-09136 and CR-PNP-2015-09400, and implemented fire watches in the affected fire areas as an interim compensatory measure.

The finding was more than minor because it was similar to example 3.k of the NRC Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," and was associated with the Protection Against External Factors (e.g., fire) attribute of the Mitigating Systems Cornerstone and adversely affected the objective to ensure the availability and reliability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The team evaluated this issue in accordance with IMC 0609, Appendix F, "Fire Protection SDP." This finding screened to very low safety significance (Green) because it did not affect the ability to reach and maintain a hot shutdown condition (i.e., it only affected the ability to reach or maintain cold shutdown conditions). This finding had a cross-cutting aspect in the area of Problem Identification & Resolution, Evaluation, because, in 2013, Entergy incorrectly assumed that the 'B' RRS MOVs would be available during any fire that could damage the 'A' MOV cables without thoroughly evaluating whether the routing for the 'B' MOV cables ensured they would remain undamaged and available. [P.2]
Inspection Report# : 2015008 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Main Control Room Annunciators 10 CFR 50.65(a)(2) Not Met
Green. Inspectors identified a Green NCV of 10 CFR 50.65, “Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, paragraph (a)(2), because Entergy did not adequately demonstrate that the main control room annunciators (a)(2) performance was effectively controlled through performance of appropriate preventative maintenance. Specifically, Entergy did not identify and properly account for functional failures of the main control room (MCR) annunciators in February 2015 and May 2015, and did not recognize that the train exceeded its performance criteria and required a Maintenance Rule (a)(1) evaluation. Entergy entered the issue into the corrective action program under condition report 2015-7986 and CR 2015-7988 and is performing the Maintenance Rule (a)(1) evaluation.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affects 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, following the three failures of the main control annunciator panel in February 2015 and May 2015, Entergy did not identify the failures as functional failures, and consequently, did not establish goals and monitoring criteria in accordance with 10 CFR 50.65(a)(1). The inspectors evaluated the significance of this finding using IMC 0609 Appendix A, The Significance Determination Process (SDP) for Findings at Power.” The finding is of very low safety significance because the finding was not a design or qualification deficiency and did not represent a loss of safety function.

The inspectors determined that the finding has a cross cutting aspect in the area of Problem Identification and

Resolution, Evaluation, in that the organization thoroughly evaluates issues to ensure that resolution addresses causes and extent of conditions commensurate with their safety significance. Specifically, Entergy identified all of the failures of the MCR annunciator system, however, Entergy did not include maintenance rule monitoring functions in the evaluation of the MCR annunciator system failures (P.2).

Inspection Report# : 2015003 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate EDG Common Cause Determinations Result in TS Violation
Green. The inspectors identified a Green Non-Cited Violation (NCV) of TS 3.5.F, "Minimum Low Pressure Cooling and Diesel Generator Availability," for failure to adequately perform technical specification (TS) surveillance requirement (SR) 4.5.F.1 to determine that the 'B' Emergency Diesel Generator (EDG) was not inoperable due to a common cause failure, or to perform the TS-specified EDG monthly surveillance test, within 24 hours of the time that operators determined that the 'A' EDG was inoperable. Specifically, on July 1, 2015 after the 'A' EDG was declared inoperable due to unexpected annunciator response during engine pre-start checks, and again on July 28, 2015, when the 'A' EDG was declared inoperable due to reactive load oscillations during a routine surveillance, Entergy performed an inadequate common cause failure determination that did not address the failure mechanism of the inoperable EDG, which had not yet been determined. This issue has been entered into the corrective action program as condition report CR-PNP-2015-8073, and additional guidance has been provided to the operations crew in the form of an operations section standing order, pending permanent corrective actions.

The finding was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the operability of the 'B' EDG was not verified as required, either through determination that it was not inoperable due to a common cause failure or through performance of the monthly TS-required surveillance. In accordance with Exhibit 2 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors determined that this finding was of very low safety significance (Green) because the performance deficiency was not a design or qualification deficiency, did not involve an actual loss of safety function, did not represent actual loss of function of a single train for greater than its technical specification allowed outage time, 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, Conservative Bias, because Entergy did not use decision making practices that emphasized prudent choices over those that are simply allowed, or in this case those choices that were perceived to be allowed. Specifically, Entergy's credited SR 4.5.F.1 based on an administrative review instead of more deliberate actions or evaluations that would be necessary to confirm that a common cause condition did not exist. (H.14)

Inspection Report# : 2015003 *(pdf)*

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Operability Assessment of the Shutdown Transformer
Green. The inspectors identified a Green NCV of 10 CFR 50, Appendix B, "Instructions, Procedures, and Drawings,"

when Entergy failed to adequately assess the operability of the shutdown transformer as required by EN-OP-104, "Operability Evaluation Process". Specifically, Entergy failed to evaluate changes to the 23KV line supplying the shutdown transformer that resulted in the shutdown transformer incorrectly being called operable. This issue has been entered into the corrective action program under CR 2015-7787. Entergy is conducting a causal analysis and operators have been given interim guidance to declare the shutdown transformer inoperable under similar conditions.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, a modification was made to the site, as described in the UFSAR that was unrecognized by Entergy during the operability determination process and resulted in the incorrect operability determination for the shutdown transformer. In accordance with Exhibit 2 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency was not a design or qualification deficiency, did not involve an actual loss of safety function, and did not represent an actual loss of function of a single train for greater than its TS allowed outage time.

This finding has a cross cutting aspect in the area of Human Performance, Avoid Complacency, in that individuals did not recognize and plan for the possibility of mistakes, latent problems, or inherent risk, even while expecting successful outcomes. Specifically, personnel did not fully evaluate the change to the 23KV line, and instead relied on a previous incorrect operability determination to justify declaring the shutdown transformer operable. (H.12)

Inspection Report# : 2015003 *(pdf)*

Significance: N/A Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Provide 10 CFR 50.59 Evaluation Associated with Offsite Power Alignment
Inspectors identified a Severity Level IV, NCV of 10CFR 50.59 "Changes, Tests and Experiments" in that Entergy failed to perform a written evaluation to provide the basis for a change to the facility that required a license amendment. Specifically, the inspectors identified that contrary to 10 CFR 50.59, Entergy failed to evaluate whether the placement of a 23KV line aboveground required a license amendment pursuant to 10 CFR 50.59 (c)(1). Entergy is performing a causal analysis, updating required procedures, and issued a standing order to ensure the site remains in TS compliance with only the 23 kV line 108 able to supply power to maintain the shutdown transformer operable.

The performance deficiency was dispositioned using the traditional enforcement process because it could potentially impede or impact the regulatory process. In accordance with the NRC Enforcement Manual, Revision 9, Part II, Enforcement of 10 CFR 50.59 and Related FSAR, Sections 2.1.3.E.1 and 2.1.3.E.6, this violation was determined to be more than minor because Entergy failed to conduct a safety evaluation when required and there was a reasonable likelihood that the change requiring 10 CFR 50.59 evaluation would have required Commission review and approval prior to implementation. Because this violation involves the traditional enforcement process and does not have an underlying technical violation that would be considered more than minor, the inspectors did not assign a cross-cutting aspect, in accordance with IMC 0612.

Inspection Report# : 2015003 *(pdf)*

Significance: W Mar 20, 2015
Identified By: NRC
Item Type: VIO Violation
Failure to Identify, Evaluate, and Correct 'A' SRV Failure to Open Upon Manual Actuation
A self-revealing preliminary White findIing and Violation (VIO) of 10 CFR 50, Appendix B, Criterion XVI,

"Corrective Action," and Technical Specification (TS) 3.5.E, "Automatic Depressurization System," was identified for the failure to identify, evaluate, and correct a significant condition adverse to quality associated with the 'A' SRV. Specifically, Entergy failed to identify, evaluate, and correct the 'A' SRV's failure to open upon manual actuation during a plant cooldown on February 9, 2013. In addition, the failure to take actions to preclude repetition resulted in the 'C' SRV failing to open due to a similar cause following the January 27, 2015, LOOP event. Entergy entered this issue in to the corrective action program (CAP) as CR-PNP-2015-01983, CR-PNP-2015-00561, and CR-PNP-2015-01520. Immediate corrective actions included replacing the 'A' and 'C' SRVs and completing a detailed operability analysis of the installed SRVs which concluded that a reasonable assurance of operability existed. This finding does not present a current safety concern because the 'A' and 'C' SRVs were replaced during the outage following the January 27, 2015 LOOP and reactor trip event. Also, Entergy performed a detailed operability analysis of the installed SRVs which concluded that a reasonable assurance of operability existed.

This performance deficiency is more than minor because it could reasonably be viewed as a precursor to a significant event if two of the four SRVs failed to open when demanded to depressurize the reactor, following the failure of high pressure injection systems or torus cooling, to allow low pressure injection systems to maintain reactor coolant system inventory following certain initiating events. In addition, it is associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

The inspectors screened this issue for safety significance in accordance with IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions." The screening determined that a detailed risk evaluation was required because it was assumed that for a year period, two of the four SRVs were in a degraded state such that they potentially would not have functioned to open at some pressure lower than rated pressure and would not fulfill their safety function for greater than the TS allowed outage time. Specifically, the assumptions of failures to open were based on: a failed actual opening demand at 200 psig reactor pressure on January 27, 2015, for the 'C' SRV; examination of the valve internals at the testing vendor (National Technical Systems); and a previous failed actual opening demand at 114 psig reactor pressure on February 9, 2013, for the 'A' SRV. The risk evaluation was performed using IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria," issued April 12, 2012. The NRC made a preliminary determination that the finding was of low to moderate safety significance (White) based on quantitative and qualitative evaluations.

This finding had a cross-cutting aspect in Problem Identification and Resolution, Evaluation, because Entergy did not thoroughly evaluate issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, Entergy staff did not thoroughly evaluate the operation of the 'A' SRV during the February 9, 2015 plant cooldown and should have reasonably identified that the 'A' SRV did not open upon three manual actuation demands [P.2].

Update: The Preliminary White finding and AV was documented in IR 05000293/2015007, dated May 27, 2015.

Update: The final significance of the finding was determined to be White and was documented in Inspection Report 05000293/2015011, dated September 1, 2015.

Inspection Report# : 2015007 *(pdf)*
Inspection Report# : 2015011 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Implementation of Corrective Action following Winter Storm Juno
The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," because Entergy did not adequately implement corrective actions for an identified condition adverse to quality. Specifically, Entergy did not implement all of the procedure changes needed to ensure shutdown cooling was placed in service in a timely matter after plant shutdown in preparation for or during a severe winter storm. Entergy entered this issue into the CAP as CR 2016-0120 and updated procedure 2.1.42 to meet the requirements of the corrective actions in CR 2015-0558. Inspectors verified that the new procedure revision included the required actions.

The inspectors determined this performance deficiency is more than minor because it is associated with the procedure quality attribute of the Barrier Integrity cornerstone, and adversely affected its objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors determined that this finding is of very low safety significance (Green) in accordance with IMC 0609, Attachment 4 and Exhibit 3 of Appendix A, because it did not represent an actual open pathway in the physical integrity of reactor containment, containment isolation system, and heat removal components. The inspectors determined that this finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Entergy staff did not ensure procedure revisions were made in accordance with the requirements of EN-LI-102, "Corrective Action Program."
Inspection Report# : 2015004 *(pdf)*

Emergency Preparedness

Significance: G Aug 20, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Guidance and Invalid Compensatory Measures for Out-of-Service EAL Instrumentation
The inspectors identified a Green non-cited violation of 10 CFR 50.54(q)(2) because Entergy did not follow and maintain an emergency plan that meets the requirements of planning standards 10 CFR 50.47(b) and Appendix E. Specifically, the Emergency Plan Implementing Procedure specified insufficient equipment as the primary method of emergency action level assessment, and directed invalid compensatory measures to be used when the primary method of emergency action level assessment for reactor coolant system leakage was unavailable. Entergy entered these issues into the corrective action program as condition reports CR-PNP-2015-7183 and CR-PNP-2015-7394. Additionally, since the time of this inspection, Entergy completed and issued the new procedure governing equipment important to emergency response.

This finding was more than minor because it was associated with the emergency response organization performance attribute of the Emergency Preparedness cornerstone and affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, the incomplete procedural guidance and the inadequate compensatory measure could have led to an emergency not being declared in a timely manner. The inspectors evaluated the finding using IMC 0609, Appendix B, "Emergency Preparedness Significance Determination Process," and determined the finding was of very low safety significance (Green). The finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Identification, because Entergy did not ensure that the issues were promptly reported and documented in the corrective action program at a low threshold. Specifically, while performing the extent of condition review of emergency plan implementing procedure EP-IP-100.1, "Emergency Action Levels," Entergy did

not effectively utilize the corrective action program to identify and correct newly identified deficiencies with the guidance for emergency action level assessment and the invalid compensatory measures. This resulted in the associated degradation of the emergency plan assessment capability remaining in effect. [P.1]
Inspection Report# : 2015010 *(pdf)*

Significance: G Aug 20, 2015
Identified By: NRC
Item Type: VIO Violation
NOV for Untimely Actions to Restore Station Meteorological Towers
The inspectors identified a Green cited violation 10 CFR 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, in December 2011, Entergy cancelled preventative maintenance of the 160' back-up meteorological tower, and that tower became non-functional. As a result, on eight occasions between March 18, 2012, and August 15, 2015, when the 220' primary meteorological tower was also non-functional for various reasons, Pilgrim did not have instrumentation available on either tower for continuous reading of the wind speed, wind direction, air temperature, and delta air temperature. At the time of this inspection in August 2015, Entergy was in the process of obtaining necessary permits for construction of the new tower.

This finding 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 cross-cutting aspect in the area of Problem Identification and Resolution, Resolution, because Pilgrim did not take effective corrective actions to address issues in a timely manner commensurate with their safety significance. Specifically, numerous delays and extensions of corrective actions resulted in a period of approximately two years in which the adverse condition identified by the inspectors had not been corrected, during which additional outages of the primary meteorological tower have resulted in additional unnecessary degradation of the Pilgrim Emergency Plan. [P.3]

Inspection Report# : 2015010 *(pdf)*

Occupational Radiation Safety

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Comply with RWP Instructions to Contact RP Prior to Dogbone Gasket Removal
The inspector identified a self-revealing Green NCV of Technical Specification 5.4.1, Regulatory Guide 1.33, Appendix "A" Procedures. Procedure EN RP 100 Radiation Worker Expectations, Section 5.4 Radiological Work Permit (RWP), requires radiation workers to comply with verbal and written instructions. RWP 2015530, Task 1 requires workers to "Contact Radiation Protection prior to entry to discuss work scope" and to allow for "RP survey when accessible surfaces are exposed." Contrary to these requirements, on April 28, 2015, several workers failed to

inform RP when performing condenser dogbone gasket removal activity, which resulted in Radiation Protection (RP) not conducting the necessary contamination surveys. Performing this work without notifying RP resulted in five workers receiving unintended internal exposures. When identified, Entergy immediately stopped work on this project, conducted a safety meeting between RP and the Entergy contractors, performed the RP surveys on the accessible surfaces and enforced the RWP respiratory protection requirements for the remaining work. This issue was entered into the Entergy corrective action program (CR-PNP-2015-07577).

The inspectors determined that the performance deficiency was more than minor because it affected the Radiation Safety – Occupational Radiation Safety Cornerstone attribute of Program and Process associated with exposure/contamination controls and because it resulted in the unintended internal exposure of five workers. It was determined to be of very low safety significance (Green) because it was not related to ALARA, it did not involve an overexposure or a potential for an overexposure and because the licensees ability to assess dose was not compromised. A cross-cutting aspect of Procedure Adherence in the area of Human Performance was assigned for individuals failing to follow processes, procedures and work instructions, in that workers did not follow the verbal and written instructions on the RWP to discuss the scope of work with RP prior to beginning the work. [H.8]
Inspection Report# : 2015003 *(pdf)*

Public Radiation Safety

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.

Miscellaneous

Last modified : August 29, 2016