

## Indian Point 2

### 2Q/2006 Plant Inspection Findings

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#### Initiating Events

**G****Significance:** Jun 30, 2006

Identified By: Self-Revealing

Item Type: FIN Finding

**INADEQUATE PROCEDURE FOR PLACING STANDBY MAIN LUBE OIL COOLER IN SERVICE**

A Green self-revealing finding was identified because Entergy's procedure for placing the standby main lube oil cooler in service was inadequate. A deficiency in the procedure resulted in a loss of main feedwater, an automatic start of the motor-driven auxiliary feedwater pumps, and a steam generator level transient. This issue was entered into the corrective action program, and the procedural deficiencies were resolved.

The inspectors determined that this finding was associated with the Initiating Events cornerstone; and, it was more than minor because it was similar to IMC 0612, Appendix E, "Examples of Minor Issues," Example 4.b, since the inadequacies in Entergy's procedure caused a plant transient. The inspectors evaluated the significance of this finding using Phase 1 of IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined that the finding was of very low safety significance because it did not contribute to the likelihood of both a reactor trip and the likelihood that mitigation equipment or functions would be unavailable. The inspectors also determined that the finding had a cross-cutting aspect in the area of human performance because Entergy's procedures were not complete and accurate, in that, they failed to ensure the standby main lube cooler was properly filled and vented prior to being placed in service.

Inspection Report# : [2006003](#)**G****Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE PROCEDURE FOR PLACING RHR PUMP SUCTION PRESSURE GAUGES IN SERVICE**

The inspectors identified a Green non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Entergy's procedures failed to ensure that the 22 residual heat removal (RHR) pump suction pressure gauge was placed in service prior to starting the system in the shutdown cooling mode of operation. This gauge, which is used to identify degrading RHR pump performance when in shutdown cooling, was left isolated after the plant was depressurized. Entergy placed the pressure gauge in service and entered the issue into the corrective action program.

The inspectors determined that this finding was more than minor because it was associated with the Procedure Quality attribute of the Initiating Events cornerstone; and, it affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations. The inspectors evaluated the significance of this finding using IMC 0609, Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists for Both PWRs [Pressurized Water Reactors] and BWRs [Boiling Water Reactors] and determined that this finding was of very low safety significance because the finding did not degrade the equipment, instrumentation, training or procedures needed for any shutdown safety function. The inspectors also determined that this finding had a cross-cutting aspect in the area of human performance because Entergy did not ensure that the procedure for placing the RHR system in the shutdown cooling mode of operation was complete and accurate.

Inspection Report# : [2006003](#)**G****Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO FOLLOW PLANT PROCEDURES FOR IMPLEMENTATION OF COMPENSATORY MEASURES**

The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because plant procedures were not followed during the installation of compensatory measures to restore operability of the RHR pumps following the identification of service water piping degradation in the primary auxiliary building. The inspectors also identified multiple deficiencies with the installation and implementation of the compensatory measures. In response, Entergy corrected the deficiencies associated with the compensatory measures and entered the issue into the corrective action program.

The inspectors determined that this finding, which was associated with the Mitigating Systems cornerstone, was more than minor because it was similar to IMC 0612, Appendix E, "Examples of Minor Issues," Example 3.a, in that, the deficiencies identified with Entergy's compensatory measures required significant rework to ensure RHR pump operability. The inspectors evaluated the significance of this finding using IMC 0609, Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists for Both PWRs and BWRs," Checklist 2, and determined that the finding was of very low significance because the finding did not degrade the equipment, instrumentation, training, or procedures needed for any shutdown safety function. The inspectors determined that this finding had a cross-cutting aspect in the area of human performance because Entergy did not follow plant procedures when implementing a temporary alteration required for

the operability of safety-related equipment.

Inspection Report# : [2006003](#)

**G**

**Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

### **INADEQUATE PROCEDURE FOR VENTING THE REACTOR VESSEL HEAD WHILE SHUTDOWN**

The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because plant procedures for reactor coolant system venting following depressurization were inadequate. This resulted in the formation of an 850 gallon void in the reactor vessel head while the plant was shutdown and depressurized. Entergy entered this issue into the corrective action program for evaluation.

The inspectors determined that this finding, which was associated with the Initiating Events cornerstone, was more than minor because if it was left uncorrected, it would have become a more significant safety concern. The inspectors evaluated the significance of this finding using IMC 0609, Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists for Both PWRs and BWRs," Checklist 3, and determined that a Phase 2 analysis was needed. The Region I Senior Reactor Analyst performed the Phase 2 analysis using IMC 0609, Appendix G, Attachment 2, "Phase 2 Significance Determination Process Template for PWR During Shutdown," and determined that the finding was of very low safety significance based upon the availability of mitigating systems and the low initiating event (loss of inventory) likelihood. The inspectors also determined that this finding had a cross-cutting aspect in the area of human performance because Entergy's shutdown procedures were not complete and accurate, in that, they failed to ensure the reactor vessel head was adequately vented.

Inspection Report# : [2006003](#)

**G**

**Significance:** Mar 01, 2006

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **SCAFFOLDING CONTROL ISSUE RESULTS IN REACTOR TRIP**

The NRC identified a Green self-revealing NCV of 10 CFR 50.65(a)(4) because Entergy did not adequately assess the risk associated with scaffold construction activities in the cable spreading room. Entergy procedure IP-SMM-WM-100, "Work Management Process," requires a risk assessment for activities that increase the risk of a plant transient. No risk assessment was completed for this work as part of the work planning process, and as a result, no risk management actions were developed. During scaffold construction, a contractor inadvertently bumped a switch which resulted in 12 dropped control rods and a subsequent manual reactor trip. Entergy entered this issue into the corrective action program and took immediate actions to improve control of scaffold construction activities.

This finding is greater than minor because it was similar to Example 4.b. of IMC 0612, Appendix E, "Examples of Minor Issues," in that the performance deficiency contributed to an actual reactor trip. This finding is of very low safety significance because while it resulted in a reactor trip, it did not also contribute to the unavailability of mitigating systems. The inspectors determined that this finding had a human performance cross-cutting aspect in that Entergy personnel failed to appropriately incorporate risk insights into planning of work activities in close proximity to trip risk components.

Inspection Report# : [2006002\(pdf\)](#)

## **Mitigating Systems**

**G**

**Significance:** Jun 30, 2006

Identified By: Self-Revealing

Item Type: FIN Finding

### **INADEQUATE CORRECTIVE ACTIONS FOR DEGRADATION OF SERVICE WATER PIPING**

A Green self-revealing finding was identified because Entergy failed to take adequate corrective actions for a degraded service water pipe in the primary auxiliary building. Degradation of this pipe was identified in 2003, but was not adequately evaluated or repaired. Consequently, in April of 2006, the continued corrosion of this pipe led to a through-wall leak and, if not corrected, would have challenged the operability of the RHR pumps. Entergy implemented compensatory measures to protect the RHR pumps, repaired the degraded pipe, and entered the issue into the corrective action program.

The inspectors determined that this finding, which was associated with the Mitigating Systems cornerstone, was more than minor because if it was left uncorrected it would have become a more significant safety concern. The inspectors evaluated the significance of this finding using Phase 1 of IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined that the finding was of very low safety significance because it represented a qualification deficiency that was confirmed not to result in the loss of operability per Part 9900 Technical Guidance, "Operability Determination Process for Operability and Functional Assessment." The inspectors also determined that this finding had a cross-cutting aspect in the area of problem identification and resolution because Entergy did not implement timely and effective corrective actions for degraded service water piping in the primary auxiliary building.

Inspection Report# : [2006003](#)

**G****Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO IDENTIFY DEGRADED RESIDUAL HEAT REMOVAL PUMP CELL FIRE DOOR**

The inspectors identified a Green NCV of license condition 2.K. because Entergy failed to identify a condition adverse to fire protection related to a degraded fire door between the 21 and 22 RHR pump cells. A similar condition with the same door had been previously identified by the NRC in January 2006. Entergy took actions to correct the degraded fire door and entered the issue into the corrective action program.

The inspectors determined that this finding was more than minor because it was associated with the Protection Against External Factors attribute of the Mitigating Systems cornerstone; and, it affected the cornerstone objective of ensuring the reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the significance of this finding using IMC 0609 Appendix F, "Fire Protection Significance Determination Process," and determined that the finding was of very low safety significance because the fire door, which was moderately degraded, provided a minimum of 20 minutes of fire endurance protection; and, the ignition sources and combustible materials in the RHR pump cells were situated in a manner that the degraded fire door would not have been subject to direct flame impingement. The inspectors also determined that this finding had a cross-cutting aspect in the area of problem identification and resolution because operators who routinely traverse through the degraded fire door during performance of their rounds had not identified the degraded condition of the door.

Inspection Report# : [2006003](#)**G****Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE POST-WORK TEST ON 21 EMERGENCY DIESEL GENERATOR**

The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," because Entergy's post-maintenance test on the 21 emergency diesel generator (EDG) following a governor replacement in November 2004 was not adequate to ensure it could perform its intended design function. Subsequent testing showed the EDG could not attain its rated load of 2300 kilowatts. Entergy corrected the deficiency with the 21 EDG, performed a post-maintenance test including a run at 2300 kilowatts, and entered the issue into the corrective action program.

The inspectors determined that this finding was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems cornerstone; and, it affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the significance of this finding using Phase 1 of IMC 0609, Appendix A, "Significant Determination of Reactor Inspection Findings for At-Power Situations," and determined that this finding was of very low safety significance because it was not a qualification deficiency; it did not represent a loss of safety function for a train or system as defined in the plant specific risk-informed inspection notebook; and it was not risk significant due to external event initiators.

Inspection Report# : [2006003](#)**G****Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO ASSESS THE RISK OF MAINTENANCE ACTIVITIES ON VALVE SI-869A**

The inspectors identified a Green NCV of 10 CFR Part 50.65(a)(4) because Entergy did not assess the risk associated with maintenance on the discharge containment isolation valve from the 21 containment spray pump, SI-869A. This maintenance resulted in the unavailability of the 21 containment spray train for a period of approximately 90 minutes. Entergy entered this issue into the corrective action program, conducted an extent of condition review, and completed a causal analysis.

The inspectors determined that this finding, which was associated with the Mitigating Systems cornerstone, was more than minor because it was similar to Example 7.e in IMC 0612, Appendix E, "Examples of Minor Issues," in that, the licensee's risk assessment failed to consider maintenance activities on components that prevent containment failure. The inspectors evaluated the significance of this finding using IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," Flowchart 1, and determined that the finding was of very low safety significance because the calculated risk deficit was not greater than  $1 \times 10^{-6}$ . The inspectors also determined that this finding had a cross-cutting aspect in the area of human performance because Entergy did not appropriately incorporate risk insights into planning work activities on SI-869A in accordance with 10 CFR Part 50.65(a)(4) and the Site Management Manual IP-SMM-WM-101, "Online Risk Assessment."

Inspection Report# : [2006003](#)**G****Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE SURVEILLANCE TEST PROCEDURE FOR EMERGENCY DIESEL GENERATORS**

The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because plant surveillance procedure 2-PT-R84B, "22 EDG 8 Hour Load Run," was not adequate to ensure testing at the appropriate power factor limit prescribed by Technical Specifications Surveillance Requirement 3.8.1.10. Entergy entered this issue into the corrective action program and completed an evaluation to assess the operability of all three EDGs.

The inspectors determined that this finding was more than minor because it was associated with the Procedure Quality attribute of the Mitigating Systems cornerstone; and, it affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the significance of this finding using Phase 1 of IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined that this finding was of very low safety significance because it was not a qualification deficiency; it did not result in the loss of a system or train safety function; and it did not screen as potentially risk-significant due to external events. The inspectors also determined that this finding had a cross-cutting aspect in the area of human performance because Entergy did not ensure that procedure 2-PT-R84B, "22 EDG 8 Hour Load Run," was complete and accurate.  
Inspection Report# : [2006003](#)

**Significance:**  Mar 01, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

#### **FAILURE TO EFFECTIVELY CONTROL THE PERFORMANCE OF THE ROD POSITION INDICATION SYSTEM**

The NRC identified a Green NCV of 10 CFR 50.65(a)(2) because Entergy failed to effectively control the performance of the rod position indication system through the use of appropriate preventative maintenance. This resulted in the failure of seven rod bottom lights to illuminate following a reactor trip, creating an additional challenge to plant operators. Entergy entered this issue into their corrective action program and is taking actions to upgrade their surveillance and maintenance procedures relative to the rod position indication system.

The inspectors determined that this finding was greater than minor because it affected 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 finding was determined to be of very low safety significance because it did not result in loss of a system or train safety function and did not screen as potentially risk-significant due to seismic, flooding, or severe weather initiating event. The inspectors determined that the finding had a problem identification and resolution cross-cutting aspect because Entergy did not thoroughly evaluate multiple rod position indication bistable failures such that the resolution addressed the causes and extent of condition of problems.  
Inspection Report# : [2006002\(pdf\)](#)

**Significance:**  Feb 22, 2006

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **INADEQUATE CORRECTIVE ACTIONS FOR UTILITY TUNNEL DEGRADATION**

The NRC identified a Green self-revealing NCV of license condition 2.K. because Entergy did not take adequate corrective actions for degraded fire protection piping in the utility tunnel. This issue contributed to failure of a 10 inch high-pressure fire protection line in the tunnel. Isolation of this leak resulted in loss of high-pressure fire water to three hose stations in the utility tunnel and three fire hydrants on site. Entergy entered this issue into their corrective action program and is evaluating plans to assess and upgrade the utility tunnel.

This finding is greater than minor because if left uncorrected it would become a more significant safety concern. This finding is of very low safety significance because the areas that lost high-pressure fire water did not contain safety-related or post-fire safe shutdown equipment. The inspectors determined that this finding had a problem identification and resolution cross-cutting aspect because Entergy did not implement timely and effective corrective actions for safety issues associated with degraded piping in the utility tunnel.  
Inspection Report# : [2006002\(pdf\)](#)

**Significance:**  Jan 29, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

#### **DEGRADED RESIDUAL HEAT REMOVAL PUMP FIRE DOOR**

The NRC identified a Green NCV of license condition 2.K. because Entergy failed to identify a degraded three-hour rated fire door between the 21 and 22 residual heat removal pump cells. The door, which provides a barrier to fire and hot gases between the two cells, was determined to be inoperable due to a 3/8 inch gap between the door and frame along the lower half of the door. Entergy entered this issue into the corrective action program and realigned the door.

This finding is greater than minor because it was associated with the Mitigating Systems cornerstone attribute of Protection Against External Factors, 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 determined that this finding is of very low safety significance because the degradation of the fire barrier was low, based on the gap in the door having minimal impact on its performance and reliability. The inspectors determined that the finding had a problem identification and resolution cross-cutting aspect because operators who routinely traverse through the degraded fire door during performance of their rounds had not identified the condition of the door in the corrective action system.  
Inspection Report# : [2006002\(pdf\)](#)

**Significance:**  Dec 31, 2005

Identified By: NRC

Item Type: FIN Finding

**Failure to Maintain Design Control of Control Rod Drive Mechanism Fans**

The NRC identified a Green finding associated with Entergy's failure to maintain appropriate design control of the control rod drive mechanism fans. A design change to improve the reliability of these fans was incorrectly implemented, impacting lubrication of the fans' motor bearings and resulting in the early failure of one of the fans during plant operation. Entergy entered this issue into their corrective action program and ordered properly configured fans for installation during the next outage.

This finding is greater than minor because 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. Specifically, the reliability of the control rod drive mechanism fans, which are required to cool the control rod drive mechanisms during normal operation and are used in the emergency operating procedures to prevent void formation in the reactor head region during natural circulation cool down, was adversely affected. This finding is of very low safety significance because while equipment reliability was degraded, there was no actual loss of system function, and this issue did not result in a plant transient or reactor trip.

Inspection Report# : [2005005\(pdf\)](#)

**G**

**Significance:** Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Procedure for Control of Work on Safety-Related Components**

The NRC identified a Green NCV of Technical Specification 5.4.1 associated with the Indian Point work control process, which inappropriately allowed implementation of work on safety-related components prior to the approval of work procedures, a modification package, and the associated engineering analysis. Specifically, Indian Point's work control procedure allowed maintenance to be declared "emergency work," which allowed bypassing of the required work review and approval processes, if that work was necessary to avoid a forced shutdown or plant transient. Entergy entered this issue into the corrective action program and took action to revise their work control procedure to modify their definition of emergency work. This finding is associated with the Human Performance cross-cutting area in that the decision to implement a modification in September 2005, without required evaluations, was based on inappropriate procedural guidance.

This finding is greater than minor, because if left uncorrected it would become a more significant safety concern. Failure to complete required evaluations prior to work on safety-related equipment could impact the operability of risk-significant components. On September 27, 2005, Entergy implemented a modification to FCV-447, a safety-related feedwater control valve, using the emergency work provision of the Indian Point work control procedure. This finding is of very low safety significance, because the safety-related work performed without an approved evaluation did not result in the actual loss of safety function of a system and did not impact fire, flooding, seismic, or severe weather initiating events. Because this finding is of very low safety significance and has been entered into Entergy's corrective action program, it is being treated as an NCV.

Inspection Report# : [2005005\(pdf\)](#)

**G**

**Significance:** Sep 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**INCORRECT SETTING OF RELIEF VALVE SI-855 ABOVE SYSTEM DESIGN PRESSURE AND FAILURE TO SUBMIT REQUIRED CHANGES TO THE SAFETY ANALYSIS REPORT**

The inspector identified a Green NCV for the licensee's failure to properly implement a design modification involving the Safety Injection (SI) pump discharge relief valve, SI-855. This was determined to be a violation of 10CFR50 Appendix B, Part III, Design Control.

The deficiency was more than minor because it affected the design control attribute of the Mitigating Systems cornerstone objective to ensure availability, reliability and capability of the SI system to prevent undesirable conditions. The issue was a design deficiency that did not result in loss of function per GL 91-18 (rev 1), and was determined to be of very low safety significance (Green) since revised calculations demonstrated the system piping remained capable of performing its specified function.

Inspection Report# : [2005004\(pdf\)](#)

**G**

**Significance:** Jul 01, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate post work test resulting in a safety related system exceeding its AOT**

The inspector identified a Green NCV of 10 CFR 50, App. B, Criterion XI "Test Control" involving an inadequate post work test following maintenance on auxiliary component cooling water discharge check valve 755A. This resulted in the failure to identify a condition which led to one train of the containment recirculation spray system being unavailable for greater than its technical specification (TS) allowed outage time.

The finding is associated with the cross-cutting issue of problem identification and resolution in that the licensee's evaluation for CR IP2-2005-00252 failed to identify the deficiencies in the post maintenance test therefore no corrective actions were written to address this issue until prompted by the inspectors.

This issue is greater than minor because the performance deficiency adversely affected the equipment performance attribute of the Mitigating Systems Cornerstone objective associated with ensuring the availability of systems that respond to initiating events to prevent undesirable consequences. A Phase 3 SDP analysis was used to assess the deficiency due to modeling limitations of the Phase 2 SDP tools. The Phase 3 evaluation, performed by a Region I Senior Reactor Analyst, confirmed that this issue was of very low safety significance.  
Inspection Report# : [2005003\(pdf\)](#)

**Significance:**  Jul 01, 2005

Identified By: NRC

Item Type: FIN Finding

**Inadequate corrective actions associated with training, procedural adequacy and operator knowledge on methods to address degraded grid**

The inspectors identified a Green finding involving inadequate corrective actions associated with the adequacy of plant procedures to be utilized during degraded grid voltage conditions and the operators' knowledge of these procedures.

This finding is greater than minor because the performance deficiency adversely impacted the Mitigating Systems Cornerstone objective associated with procedure quality. The inspectors conducted a Phase 1 SDP screening and determined that the finding was of very low safety significance. The 138KV system voltage had been maintained greater than the minimum operating voltage throughout the year and implementation of the procedure was not required, therefore an actual loss of safety function did not exist during the period in question.

Inspection Report# : [2005003\(pdf\)](#)

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## Barrier Integrity

**Significance:**  Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Follow Procedural Requirements During Modification of a Safety-Related Valve**

The NRC identified a Green NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for a failure to follow procedures during implementation of a temporary alteration to FCV-447, the safety-related feedwater flow control valve to the 24 steam generator. Specifically, while implementing a modification to grind material from the valve actuator cap screw heads, maintenance personnel removed more material than allowed by the modification package. This error was not identified by the maintenance workers or engineering personnel upon completion of the modification. Entergy entered this issue into the corrective action program and completed an operability assessment to show that FCV-447 remained operable. This finding is associated with the Human Performance cross-cutting area because the failure to follow procedures was the result of a personnel error during implementation of the modification.

This finding is greater than minor because it is associated with the Barrier Integrity cornerstone attribute of Barrier Performance, and affected the cornerstone objective of ensuring the availability and reliability of components used for containment isolation. Improper implementation of this modification could have resulted in the inability of this valve to perform its safety function. This finding is of very low safety significance because while the modification was incorrectly implemented, subsequent analysis showed that the valve remained operable. Because this finding is of very low safety significance and has been entered into Entergy's corrective action program, it is being treated as an NCV.

Inspection Report# : [2005005\(pdf\)](#)

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## Emergency Preparedness

**Significance:**  Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Facilities and Equipment to Determine Threshold for Emergency Action Level**

A Green NCV associated with emergency planning standard 10 CFR 50.47(b)(4) was identified by the inspectors, because no established means of indication or procedures were readily available for operators to determine if the service water bay level met the threshold for declaration of an Unusual Event (UE) described in EAL 8.4.3. Entergy installed temporary level indication and entered this issue into its corrective action program for further evaluation and implementation of long term corrective actions

This finding is greater than minor because it is associated with the Emergency Preparedness cornerstone attribute of Facilities and Equipment, 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. The deficiency is not greater than Green because it did not result in the Risk-Significant Planning Standard Function being lost or degraded. Section 4.4 of Manual Chapter 0609, Appendix B, provides examples for use in assessing emergency

preparedness related findings. One example of a Green finding states, "The EAL classification process would not declare any Alert or Notification of Unusual Event that should be declared." Since the declaration of an UE based on low service water bay level could have been missed or delayed, this finding was considered consistent with the example provided and was therefore determined to be of very low safety significance (Green). Because this issue is of very low safety significance and has been entered into Entergy's corrective action program, it is being treated as an NCV. Inspection Report# : [2005005\(pdf\)](#)

**Significance:**  Dec 31, 2005

Identified By: NRC

Item Type: FIN Finding

#### **Inadequate Corrective Actions for Frame Relay System Problems**

The inspectors identified a Green finding for a failure to implement timely corrective actions for multiple frame relay system problems dating back to 2003. Specifically, for issues related to the reliability of the frame relay system, adequate actions to prevent recurrence were not implemented in a timely manner. Entergy's corrective actions in response to the August 2005 frame relay failures resulted in a more thorough assessment of this issue and reasonable actions to prevent recurrence. This finding was associated with the Problem Identification and Resolution cross-cutting area because it was related to Entergy's failure to implement timely corrective actions for reliability issues with the frame relay system.

This finding was determined to be more than minor because it is associated with the Emergency Preparedness cornerstone attribute of Facilities and Equipment. It 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. This finding is not suitable for Significance Determination Process evaluation but has been reviewed by NRC management and is determined to be a finding of very low safety significance. This issue is not greater than Green, because of the short periods that the frame relay system was unavailable and, because the alert and notification system design included a secondary method (i.e., back-up radio system) to actuate the sirens.

Inspection Report# : [2005005\(pdf\)](#)

**Significance:** SL-IV Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Make a 10 CFR 50.72(b)(3)(xiii) Notification**

A Severity Level IV violation of 10 CFR 50.72(b)(3)(xiii) was identified for not formally reporting a siren system problem that occurred on August 5, 2005. The inspectors noted that the duration of the siren system problem was short, the NRC was informally notified, the process for back-up route alerting was available, and the capability to actuate the sirens via a manual siren initiation method was not lost. Subsequent to this event, Entergy implemented corrective actions to formalize the manual siren system actuation method. Notwithstanding these circumstances, a formal notification to the NRC was required, because the normal processes for actuation of the sirens were not available and Entergy did not have formal procedures for, and had limited experience with, the manual siren initiation method.

This deficiency was evaluated using the traditional enforcement process since the failure to make a required report could adversely impact the NRC's ability to carry out its regulatory mission. Because this finding is of very low safety significance and has been entered into the corrective action program, it is being treated as an NCV.

Inspection Report# : [2005005\(pdf\)](#)

## **Occupational Radiation Safety**

**Significance:**  Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

#### **INADEQUATE SURVEY DURING CORE BARREL REPLACEMENT CAUSED UNINTENDED EXPOSURE**

A Green self-revealing NCV of 10 CFR Part 20.1501, "General," was identified because Entergy failed to take adequate radiation surveys during the installation of the core support barrel. As a result, Entergy did not recognize that actual radiological conditions were significantly different than expected, which contributed to unplanned and unintended exposure of a worker. Entergy entered this issue into the corrective action program and completed a root cause analysis.

The inspectors determined that this finding was more than minor because it was associated with the Program and Process attribute of the Occupational Radiation Safety cornerstone; and, it affected the cornerstone objective of ensuring adequate protection of workers from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The inspector evaluated the significance of this finding using IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," and determined that this finding was of very low safety significance because it did not involve: (1) as low as reasonable achievable planning or work controls; (2) an overexposure; (3) a substantial potential for overexposure; or (4) an impaired ability to assess dose.

Inspection Report# : [2006003](#)

**Significance:**  Jun 30, 2006

Identified By: Self-Revealing  
Item Type: NCV NonCited Violation

### **FAILURE TO IMPLEMENT PROCEDURAL REQUIREMENTS ASSOCIATED WITH CORE SUPPORT BARREL REPLACEMENT**

A Green self-revealing NCV of Technical Specification 5.4.1 was identified because Entergy failed to follow procedural requirements during the core support barrel installation activity. As a result, dose rates were significantly higher than expected during the work activity, and a worker received an unplanned and unintended radiation exposure. Entergy entered this issue into the corrective action program and completed a root cause analysis.

The inspectors determined that this finding was more than minor because it was associated with the Program and Process attribute of the Occupational Radiation Safety cornerstone; and, it affected the cornerstone objective of ensuring adequate protection of workers from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The inspectors evaluated the significance of this finding using IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," and determined that the finding was of very low safety significance because it did not involve: (1) as low as reasonable achievable planning or work controls; (2) an overexposure; (3) a substantial potential for overexposure; or (4) an impaired ability to assess dose. The inspectors also determined that the finding had a cross-cutting aspect in the area of human performance because Entergy personnel failed to comply with plant procedures that were required and specified to support reinstallation of the core support barrel.

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## **Public Radiation Safety**

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## **Physical Protection**

[Physical Protection](#) information not publicly available.

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## **Miscellaneous**

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