

# Indian Point 2

## 4Q/2010 Plant Inspection Findings

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### Initiating Events

**Significance:**  Dec 31, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

#### **Inadequate Main Boiler Feed Pump Speed Controller Setting**

A Green self-revealing finding was identified because Entergy's procedure 2 IC PC-N-P-408A, "Main Boiler Feed Pump (MBFP) Discharge Pressure Speed Control," did not provide adequate guidance to ensure proper settings for the MBFP speed controller settings at low power operations. Specifically, between May 5, 2006 and September 3, 2010, procedure 2-IC-PC-N-P-408A did not provide adequate guidance to ensure proper settings for the MBFP speed controller settings at low power operations, resulting in a slow MBFP response, which contributed to a reactor trip from 41% power. Entergy personnel took immediate corrective actions to change the MBFP speed controller settings. This issue was entered into Entergy's corrective action program (CAP) as condition report (CR)-IP2-2010-05484.

This finding is more than minor because it is associated with the design control attribute of the Initiating Events cornerstone and affects the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. Specifically, inadequate design control of the MBFP speed controller settings contributed to a reactor trip. Using IMC 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because the finding did not contribute to the likelihood that mitigation equipment or functions would not be available.

The inspectors determined there was no cross-cutting issue associated with the finding because the performance deficiency did not reflect Entergy's current performance. Specifically, the performance deficiency occurred more than three years ago and was outside the current assessment period.

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Mar 30, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

#### **Improper Generrex Isolation Caused Reactor Trip**

A self-revealing finding of very low safety significance was identified because Entergy personnel did not establish procedures that were appropriate to the task, and personnel did not adequately implement the procedures that existed for isolating the generator exciter system on the main generator. Specifically, on January 11, 2010, Entergy personnel did not properly isolate one rectifier exciter bank on the exciter system of the main generator while repairing a leak in the associated cooling water line. Entergy staff did not ensure that the procedural direction was adequate to ensure that the workers could recognize when the exciter rectifier disconnect switches were in the fully open position. In addition, Entergy supervisors did not stop the maintenance in the face of uncertainty when presented with several indications that the 24 exciter rectifier bank had not been isolated, including detecting unexpected voltage in the 24 exciter rectifier cabinet and a high temperature alarm associated with the exciter rectifier. As a result, the rectifier bank was not properly isolated electrically while the cooling water to the rectifier was isolated. This resulted in overheating the exciter bank control circuits which caused a main turbine trip and a reactor trip.

This finding is more than minor because the performance deficiencies caused a reactor trip. The finding is associated with both the procedure quality and human performance attributes of the Initiating Events cornerstone and affected the cornerstone objective of

limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors performed a Phase 1 screening in accordance with Inspection Manual Chapter (IMC) 0609 "Significance Determination Process (SOP)" and determined that the finding is of very low safety significance (Green) because it did not contribute to the likelihood that mitigation equipment or functions would not be available.

The finding has a cross-cutting aspect in the area of human performance related to decision making. Entergy personnel did not make safety-significant or risk significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained (H.1.a).

Inspection Report# : [2010002](#) (*pdf*)

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## Mitigating Systems

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Perform Required Quality Control Inspections**

The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion X, "Inspection," because Entergy personnel did not ensure that quality control verification inspections were consistently included and correctly specified in quality-affecting procedures and work instructions for construction-like work activities as required by the quality assurance program (QAP). Entergy personnel performed extensive reviews and initiated prompt fleet-wide corrective actions to ensure proper work order evaluation and proper inclusion of quality control verification inspections. This issue was entered into Entergy's corrective action program (CAP) as CR-HQN-2009-01184 and CR-HQN-2010-0013.

This finding is more than minor because it is a programmatic deficiency that if left uncorrected, could lead to a more significant safety concern in that the failure to check quality attributes could involve an actual impact to plant equipment. This finding is associated with the design control attribute of the Mitigating Systems cornerstone because missed quality control inspections during plant modifications could impact the availability, reliability, and capability of systems needed to respond to initiating events. Using IMC 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because the finding is a qualification deficiency confirmed not to result in a loss of operability or functionality. Specifically, inspectors verified by sampling that work documents provided objective quality evidence that work activities that had missed quality control verifications were properly performed.

The finding has a cross-cutting aspect in the area of human performance associated with the decision-making attribute because Entergy personnel did not have an effective systematic process for obtaining interdisciplinary reviews of proposed work instructions to determine whether Quality Control verification inspections were appropriate.

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Implement the Experience and Qualification Requirements of the Quality Assurance Program**

The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion II, "Quality Assurance Program (QAP)," because Entergy personnel did not implement the qualification and experience requirements of the QAP to ensure that an individual assigned to the position of quality assurance manager (QAM) met the qualification and experience requirements of ANSI/ANS 3.1-1978. Specifically, the individual assigned as the responsible person for the Entergy's overall implementation of the QAP did not have at least one year of nuclear plant experience in the overall implementation of the QAP within the quality assurance organization prior to assuming those responsibilities. This issue was entered into Entergy's CAP as CR-HQN-2010-00386.

This finding is more than minor because if left uncorrected, it could lead to a more significant safety concern. Specifically, the failure to have a fully qualified individual providing overall oversight to the QAP had the potential to affect all cornerstones. However, this finding will be tracked under the Mitigating Systems cornerstone as the area most likely to be impacted. The finding was not suitable for quantitative assessment using existing Significance Determination Process guidance. Using IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria," NRC management determined the finding to be of very low safety significance (Green) because other quality assurance program functions remained unaffected by this performance deficiency, so defense-in-depth continued to exist.

The inspectors determined there was no cross-cutting aspect associated with this finding because the performance deficiency did not reflect Entergy's current performance. Specifically, the performance deficiency occurred more than three years ago and was outside the current assessment period.

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to Meet TS Oversight Requirement**

A Green self-revealing NCV of Technical Specification (TS) 5.1, "Responsibility," was identified because on February 9, 2010, the control room supervisor (CRS) assigned as having the control room command function, left the control room without designating another senior reactor operator (SRO) qualified individual to assume the control room command function. The CRS promptly returned to the control room shortly after the issue was identified. This issue was entered into Entergy's CAP as CR-IP2-2010-00708.

The finding is more than minor because it could be reasonably viewed as a precursor to a significant event. Specifically, the absence of SRO oversight during licensed control room activities increases the likelihood of human performance errors contributing to an initiating event and reduces the effectiveness of event mitigation. The finding is associated with the human 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. The finding was not suitable for quantitative assessment using existing Significance Determination Process guidance. Using IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria," NRC management determined the finding to be of very low safety significance (Green) because of the short period the CRS was absent from the control room, and because no initiating events occurred during that time.

The finding has a cross-cutting aspect in the area of human performance associated with the work practices attribute because of the ineffective use of shift turnover practices, in that the CRS did not self check or communicate his decision to leave the control room to the rest of the control room staff.

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Sep 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Reactor Trip Breaker Preventative Maintenance Procedure Was Not Adequately Implemented**

A self-revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was identified because Entergy personnel did not adequately implement the preventative maintenance (PM) procedure for the B reactor trip breaker (RTB). Specifically, on March 10, 2009, Entergy staff did not adequately implement PM Procedure 0 BRK 401 ELC, "Westinghouse, Reactor Trip and Bypass Circuit Breaker (DB 50)," which resulted in the inoperability of the B RTB shunt trip device function on July 5, 2010. Entergy personnel took immediate corrective actions to replace the B RTB and its associated fuse block assembly. This issue was entered into Entergy's corrective action program as condition report (CR) IP2 2010 4451.

This 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 and reliability of systems that

respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, inadequate preventive maintenance contributed to the failure of the shunt trip device function of the B RTB. Using IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because the finding did not result in a loss of system safety function because the undervoltage coil was operable; there was not an actual loss of safety function of a single train for greater than its technical specification allowed outage time; and the issue was not potentially risk significant due to a seismic, flooding, or severe weather initiating event.

The finding has a cross cutting aspect in the area of problem identification and resolution associated with the corrective action program attribute of complete and accurate identification of issues. Specifically, Entergy staff performing preventive maintenance did not identify and communicate RTB conditions completely and accurately such that the B RTB conditions were fully identified in the CAP.

Inspection Report# : [2010004](#) (pdf)

**Significance:** SL-IV May 21, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**UFSAR Section 5.3.1.12, Cathodic Protection, Not Updated Consistent with Plant Conditions**

The inspectors identified a Severity Level IV (SLIV) NCV of 10 CFR 50.71(e) because Entergy personnel did not revise the updated final safety analysis report (UFSAR) with information consistent with plant conditions.

Specifically, Entergy personnel did not remove reference to or correct information to reflect current plant conditions related to systems described as having cathodic protection consistent with UFSAR Section 5.1.3.12, Cathodic Protection. Entergy personnel identified that the UFSAR was inconsistent with current plant conditions in 2005. However, the corrective action to resolve the discrepancy was not completed. Entergy issued CR-IP2-2010-03512 to address the UFSAR discrepancy.

This issue is considered within the traditional enforcement process because it has the potential to impede or impact the NRC's ability to perform its regulatory functions. The inspectors used the Enforcement Policy, Supplement I – Reactor Operations, to evaluate the significance of this violation. The inspectors concluded that the violation is more than minor because the longstanding and incorrect information in the UFSAR had a potential impact on safety and licensed activities. Similar to Enforcement Policy Supplement I, example D.6, the inspectors determined the violation was of SLIV (very low safety significance) since the erroneous information not updated in the UFSAR was not used to make an unacceptable change to the facility nor impacted a licensing or safety decision by the NRC.

The inspectors determined there was a cross-cutting aspect in the area of problem identification and resolution associated with the component area of corrective action effectiveness. Specifically, Entergy personnel did not implement adequate actions in a timely manner to update the UFSAR to be consistent with plant conditions. (P.1.d per IMC 0310) (Section 4OA2.1.c)

Inspection Report# : [2010008](#) (pdf)

**Significance:**  Apr 07, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Fire Scenario resulting in loss of charging pump suction**

The team identified a Green, Non-Cited Violation (NCV) of 10 CFR 50, Appendix R, III.G.3, in that Entergy failed to provide one train of reactor coolant system makeup free of fire damage for the control room, cable spread room, and cable tunnel fire zones for postulated fire scenarios. Specifically, Entergy failed to assure that one charging pump would remain free of fire damage for alternate shutdown fire scenarios that could produce a spurious closure of the volume control tank motor operated outlet valve. Entergy initiated condition report CR IP2-2010-00720 for long term resolution and promptly initiated hourly fire watches in all affected fire areas except for the cable tunnel as an interim compensatory measure. The cable tunnel was evaluated as not requiring an hourly fire watch and being sufficiently protected with installed fire detection and automatic fire suppression in addition to administrative controls that limit personnel access.

This finding is more than minor because it is associated with the External Factors attribute (fire) of the Mitigating

Systems Cornerstone and adversely affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the availability of the charging system was not ensured for postulated fires in alternative shutdown areas. The team used Phase 1, 2, and 3 risk assessment tools of IMC 0609, Appendix F, Fire Protection Significance Determination Process, to determine that this finding was of very low safety significance (Green), with an estimated total core damage frequency in the low to mid E-7/year range.

The team determined that no cross-cutting aspects were associated with this finding. Entergy evaluated this issue in 2001 (CR-IP2-2001-02366) and did not adequately resolve the issue of protecting the 23 charging pump for all postulated fire scenarios. Because the error occurred more than three years ago, the cross-cutting aspect is not indicative of current licensee performance. A cross-cutting aspect was not identified. (Section 1R05.01.1)

Inspection Report# : [2010006](#) (pdf)

**Significance:**  Apr 07, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

### **Fire Scenario resulting in loss of cooling water to charging pumps**

The team identified a Green, Non-Cited Violation of 10 CFR 50, Appendix R, III.G.3, in that Entergy failed to provide one train of reactor coolant system makeup free of fire damage for the control room, cable spread room, electrical switchgear room, and cable tunnel fire zones for postulated fire scenarios. Specifically, Entergy failed to assure that one charging pump would remain free of fire damage for alternate shutdown fire scenarios that could produce a spurious trip of a component cooling water (CCW) pump. Entergy initiated condition report CR-IP2-2010-00751 for long term resolution and promptly initiated hourly fire watches in all affected fire areas except for the cable tunnel as an interim compensatory measure. The cable tunnel was evaluated as not requiring an hourly fire watch and being sufficiently protected with installed fire detection and automatic fire suppression in addition to administrative controls that limit personnel access.

This finding is more than minor because it is associated with the External Factors attribute (fire) of the Mitigating Systems Cornerstone and adversely affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the availability of the charging system was not ensured for postulated fires in alternative shutdown areas. The team used Phase 1, 2 and 3 risk assessment tools of IMC 0609, Appendix F, Fire Protection SDP, to determine that this finding was of very low safety significance (Green), with an estimated total core damage frequency in the low to mid E-7/year.

The team determined that no cross-cutting aspects were associated with this finding. Entergy had a legacy interpretation that nominally one hour existed to restore cooling water to a charging pump. The manual action to restore cooling water within the alternative shutdown procedure was inappropriately prioritized. Entergy considered one hour to restore cooling water as adequate compared to 4 minutes if the charging pump were at minimum speed. Because the error occurred more than three years ago, the cross-cutting aspect is not indicative of current licensee performance. (Section 1R05.01.2)

Inspection Report# : [2010006](#) (pdf)

**Significance:**  Mar 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Isolation of Service Water to All Emergency Diesel Generators**

A self-revealing NCV of Technical Specification (TS) Limiting Condition of Operation (LCO) 3.8.2 was identified when Entergy personnel did not maintain service water (SW) cooling to the emergency diesel generators (EDGs) when the reactor was in cold shutdown. Specifically, on March 13, 2010, Entergy personnel isolated cooling water flow to the EDGs for a period of three minutes. This condition was corrected after an alarm in the control room alerted the operators to the condition and the operators

promptly directed the restoration of cooling water to the EDGs.

The inspectors determined that the isolation of cooling water flow to the standby EDGs was a violation of TS LCO 3.8.2, which requires "Two EDGs to be capable of supplying two safeguards power trains of the onsite AC electrical power distribution subsystem(s) required by LCO 3.8.10." Inadequate SW cooling to the EDGs, if left uncorrected, could have caused the EDGs to fail from a lack of cooling. This finding is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and adversely affected the objective to assure the availability, reliability and capability of systems that respond to initiating events to prevent core damage. The finding was determined to be of very low safety significance (Green) because further analysis by Entergy staff determined that the EDGs could have operated without cooling water for the period of three minutes.

The finding has a cross-cutting aspect in the area of human performance related to work practices. Entergy personnel did not incorporate actions to address the impact of work on different job activities, and did not plan work activities to support equipment reliability by limiting safety systems unavailability and reliance on manual actions (H.3.b).

Inspection Report# : [2010002](#) (*pdf*)

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## Barrier Integrity

**Significance:**  Jul 01, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

### **Inoperable Control Room Ventilation System due to Damper Mispositioning**

The inspectors identified a Green NCV of Technical Specification (TS) 3.7.10 because Entergy personnel did not ensure proper configuration control of a damper in the control room ventilation system (CRVS), which resulted in both trains of CRVS being inoperable for greater than the TS allowed outage time. Although the closed damper was identified by the licensee during planned testing to fulfill Surveillance Requirement (SR) 3.7.10.4, this finding is being considered an NRC-identified finding due to significant questions from the inspectors that resulted in the implementation of additional corrective actions. Entergy personnel entered this issue into their Corrective Action Program (CAP) as CR-IP2-2010-03076 and CR-IP2-2010-03564 for resolution. Planned corrective actions included reinforcement of human performance tools, utilization of operating experience during future pre-job and pre-outage briefings, revised system check-off list, and implementation of a more robust method for locking the damper in position.

This finding was greater than minor because it was associated with the Barrier Performance attribute of the Barrier Integrity cornerstone, and it impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. This finding is of very low safety significance because it impacted the radiological barrier function of the control room but did not impact other barrier functions of the control room.

The inspectors determined that the finding has a cross-cutting aspect in the area of Human Performance, Work Practices component, because Entergy personnel did not ensure that human error prevention techniques were applied to ensure work activities on the 'A' CRVS damper did not impact the nearby CCRB1 damper.

Inspection Report# : [2010003](#) (*pdf*)

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## Emergency Preparedness

**Significance:** G Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Compensatory Measures for Out-of-Service Plant Vent Process Radiation Monitor**

The inspectors identified a Green NCV of 10 CFR 50.54, "Conditions of Licenses," paragraph (q), because Entergy staff did not implement adequate compensatory measures when the R-27 plant vent process radiation monitor, which is used for emergency action level (EAL) classification, was taken out of service. Specifically, between October 25, 2010 and November 24, 2010, the R-27 monitor was out of service for repair following preventive maintenance with inadequate compensatory measures regarding the impact on EAL classification capability. Entergy personnel implemented short-term corrective actions by providing adequate compensatory instructions for the operating crews. The issue was entered into Entergy's CAP as CR-IP-2010-06721 which includes longer-term corrective actions regarding emergency preparedness procedure changes.

This finding is more than minor because it affected the Emergency Response Organization attribute of the Emergency Preparedness (EP) cornerstone to ensure that the Entergy personnel are capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency. Specifically, Entergy personnel did not provide adequate compensatory measures for when the R-27 plant vent monitors were taken out of service. In accordance with IMC 0609, Appendix B, "Emergency Preparedness Significance Determination Process," the inspectors determined the finding to be of very low safety significance (Green). Using IMC 0609, Appendix B, Section 4.9 and Sheet 1, "Failure to Comply," the inspectors determined that the failure to comply with an aspect of the Emergency Plan related to event classification (10 CFR 50.47(b)(4)) was a risk-significant planning standard (RSPS) problem; but it was not a RSPS functional failure of the Indian Point Energy Center (IPEC) event classification process.

This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program attribute of taking appropriate corrective actions to address safety issues in a timely manner. Specifically, Entergy staff did not take appropriate emergency planning compensatory corrective actions when the R-27 plant vent radiation monitor was taken out of service.

Inspection Report# : [2010005](#) (*pdf*)

**Significance:** G Dec 31, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Staff the Site TSC and OSC Within 60 Minutes of an Alert Emergency Declaration**

A Green self-revealing NCV of 10 CFR 50.54, "Conditions of Licenses," paragraph (q), was identified because Entergy staff did not adequately implement the requirements of the IPEC Emergency Plan. On the evening of November 7, 2010, the Unit 2 operators declared an Alert emergency at 1849 hours. The technical support center (TSC) was staffed and declared operational at 2008 hours, and the operations support center (OSC) was staffed and declared operational at 2015 hours. Both of these activation times exceeded the 60-minute staffing requirement in the IPEC Emergency Plan. This issue was entered into Entergy's CAP as CR-IP2-2010-6813, CR-IP2-2010-6831, and CR-IP2-2010-6871.

This finding is more than minor because it affected the Emergency Response Organization (ERO) attribute of the EP cornerstone to ensure that Entergy personnel are capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency. Entergy personnel did not meet the requirements of the IPEC Emergency Plan in that the TSC and OSC were not staffed nor declared operational within 60 minutes of the Alert emergency declaration on November 7, 2010. In accordance with IMC 0609, Appendix B, "Emergency Preparedness Significance Determination Process," the inspectors determined the finding to be of very low safety significance (Green). Using IMC 0609, Appendix B, Section 4.2 and Sheet 2, "Actual Event Implementation Problem," the inspectors determined that the failure to comply with an aspect of the Emergency Plan related to ERO augmentation (10 CFR 50.47(b)(2)) was a non-risk-significant planning standard problem which occurred during an Alert emergency and is therefore of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of human performance associated with the work practices attribute of defining and effectively communicating expectations regarding procedural compliance and personnel following

procedures. Specifically, Entergy staff did not comply with ERO expectations and procedures regarding prompt reporting to an assigned emergency response facility during an actual event.

Inspection Report# : [2010005](#) (pdf)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure of Offsite Notification Procedure to Meet the Requirements of the Site Emergency Plan**

The inspectors identified a Green NCV of 10 CFR 50.54, "Conditions of Licenses," paragraph (q), because the Entergy emergency plan implementing procedure (EPIP) for notification of offsite officials did not meet the requirements of the IPEC Emergency Plan. This EPIP had contained a deficiency in the backup process for offsite notification since July 2006. Entergy personnel responded by documenting the deficiency in CR-IP2-2010-07563 and by initiating a procedure change to align the backup process with the Emergency Plan commitments.

This finding is more than minor because it affected the Emergency Response Organization attribute of the EP cornerstone to ensure that the Entergy personnel are capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency. Entergy procedures allowed for a back-up notification process that did not comply with the requirements of the site emergency plan: the Emergency Plan requires that the Shift Manager or his designee notify the offsite authorities of an emergency declaration, while Form EP-4 directed the delegation of this responsibility to an offsite authority itself. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix B, "Emergency Preparedness Significance Determination Process," the inspectors determined the finding to be of very low safety significance (Green). Using IMC 0609, Appendix B, Section 4.5 and Sheet 1, "Failure to Comply," the inspectors determined that the failure to comply with an aspect of the Emergency Plan related to event notification (10 CFR 50.47(b)(5)) was a RSPS problem. It was not a RSPS functional failure of the IPEC event notification process, because the deficiency in the IPEC EPIP was in the backup method for offsite notification, and despite the procedural flaw offsite notifications were made in a timely and accurate manner on November 7, 2010.

The inspectors determined there was no cross-cutting aspect associated with this finding because the performance deficiency did not reflect Entergy's current performance. Specifically, the performance deficiency associated with a procedure change made in July 2006 occurred more than three years ago and was outside the current assessment period.

Inspection Report# : [2010005](#) (pdf)

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## **Occupational Radiation Safety**

**Significance:**  Dec 31, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

### **Inadequate Work Planning Control Relative to Regenerative Heat Exchanger Permanent Shielding Modification That Resulted in Additional Unplanned Collective Exposure**

A Green self-revealing finding was identified because Entergy personnel did not adequately plan and control work activities related to a regenerative heat exchanger permanent shielding modification in accordance with radiation work permit (RWP) 20102537, "2R19 Permanent Regen Hx Shielding." Specifically, Entergy personnel did not perform walkdowns to support modification package planning and provided limited field supervision which resulted in significant unplanned collective exposure (17.189 person-rem compared to a revised work activity estimate of 8.000 person-rem). This issue was entered into Entergy's CAP as CR-IP2-2010-02817.

The finding is more than minor because it is associated with the program and process attribute of the Occupational Radiation Safety cornerstone and affected the cornerstone objective of ensuring the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine reactor operations. Additionally, this finding is similar to the more than minor example 6.j provided in IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," because it involves an actual collective exposure greater than 5 person-rem and exceeded the planned, intended dose by more than 50%. Using IMC 0609, Appendix C, "Occupational Radiation

Safety Significance Determination Process,” the finding was determined to have very low safety significance (Green) because the finding involved an as low as reasonably achievable (ALARA) planning issue and the 3-year rolling average collective dose history was less than 135 person-rem (52.261 person-rem average annual exposure for 2007-2009).

The finding has a cross cutting aspect in the area of human performance associated with the work control attribute because Entergy’s planned work activities did not adequately incorporate the job site interferences and their resolution in accordance with radiological safety.

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

### **Inadequate Work Coordination Relative to Reactor Cavity Liner Repair That Resulted in Additional Unplanned Collective Exposure**

A Green self-revealing finding was identified because Entergy personnel did not adequately plan and control work activities related to reactor cavity liner repair in accordance with RWP 20102530, “2R19 Cavity Liner Repair.” Specifically, outage schedule delay and inadequate work coordination resulted in the use of back-up workers to perform the reactor cavity sealant removal work, and also resulted in reactor head shielding removal and cancellation of additional shielding that was specified in the ALARA plan, which resulted in significant unplanned collective exposure (7.058 person-rem compared to a revised work activity estimate of 3.635 person-rem). This issue was entered into Entergy’s CAP as CR-IP2-2010-02817.

This finding is more than minor because it is associated with the program and process attribute of the Occupational Radiation Safety cornerstone and affected the cornerstone objective of ensuring the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine reactor operations. It is also similar to the more than minor example 6.j provided in IMC 0612, “Power Reactor Inspection Reports,” Appendix E, “Examples of Minor Issues,” because it involves an actual collective exposure greater than 5 person-rem and exceeded the planned, intended dose by more than 50%. Using IMC 0609, Appendix C, “Occupational Radiation Safety Significance Determination Process,” the finding was determined to have very low safety significance (Green) because the finding involved an as low as reasonably achievable (ALARA) planning issue and the 3-year rolling average collective dose history was less than 135 person-rem (52.261 person-rem average annual exposure for 2007-2009).

The finding has a cross-cutting aspect in the area of human performance associated with the work coordination attribute because Entergy personnel did not coordinate and implement work activities as planned, which resulted in significant dose overrun.

Inspection Report# : [2010005](#) (*pdf*)

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## **Public Radiation Safety**

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## **Physical Protection**

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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## **Miscellaneous**

**Significance:** N/A May 21, 2010

Identified By: NRC

Item Type: FIN Finding

**2010 Unit 2 PIR team summary**

The inspectors concluded that Entergy was generally effective in identifying, evaluating, and resolving problems. Entergy personnel identified problems at a low threshold and entered them into the Corrective Action Program (CAP). For most condition reports (CRs) reviewed, the inspectors determined that site personnel screened issues appropriately for operability and reportability, and generally prioritized issues commensurate with the safety significance of the problems. The inspectors determined that causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors also determined that corrective actions addressed the identified causes and were implemented in a timely manner. However, the inspectors identified one violation of NRC requirements in the area of effectiveness of corrective actions. The issue was entered into Entergy's CAP during the inspection.

Entergy's audits and self-assessments reviewed by the inspectors were thorough and probing. Additionally, the inspectors concluded that Entergy adequately identified, reviewed, and applied relevant industry operating experience (OE) to Indian Point Unit 2. Based on interviews, observations of plant activities, and reviews of the CAP and the Employee Concerns Program (ECP), the inspectors concluded that there was not evidence of challenges to the free flow of information regarding safety concerns.

Inspection Report# : [2010008](#) (*pdf*)

Last modified : March 03, 2011