

Indian Point 3

1Q/2006 Plant Inspection Findings

Initiating Events

Significance:  Sep 30, 2005

Identified By: Self-Revealing

Item Type: FIN Finding

INADEQUATE WORK INSTRUCTIONS DURING TROUBLESHOOTING LEADS TO MANUAL REACTOR TRIP

A Green self-revealing finding was identified for failure to have adequate work instructions for a maintenance activity performed by Entergy maintenance technicians during the 3R13 refueling outage in April 2005.

This finding is greater than minor because Entergy did not provide adequate work instructions for a maintenance activity on a secondary plant component and this error directly contributed to the occurrence of a reactor trip. The reactor trip adversely impacted the Initiating Events Cornerstone Objective, and was associated with the objective's human performance attribute. The finding was determined to be of very low safety significance (Green) based on a Phase 1 analysis in accordance with IMC 0609, safety significance (Green) based on a Phase 1 analysis in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The basis of this determination was that all safety systems were available during the reactor trip. No violation of regulatory requirements occurred.

This finding is associated with the cross cutting area of human performance, in that, the plant staff did not implement appropriate work instructions during a maintenance activity and their technical review of the maintenance activity did not identify the potential for an undesired plant response. These errors negatively impacted the likelihood of an initiating event.

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

Significance:  Jun 30, 2005

Identified By: Self-Revealing

Item Type: FIN Finding

Inadequate Work Controls during Troubleshooting Leads to Automatic Reactor Trip

A Green self-revealing finding was identified involving Entergy's failure to use adequate work instructions during troubleshooting on the condensate polisher system which resulted in an automatic reactor trip on May 6, 2005.

This finding is greater than minor because Entergy did not provide adequate controls for maintenance troubleshooting activities on a secondary plant component and this error directly contributed to the occurrence of a reactor trip. The reactor trip adversely impacted the Initiating Events Cornerstone Objective, and was associated with the objective's human performance attribute. The finding was determined to be of very low safety significance (Green) based on a Phase 1 analysis in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The basis of this determination was that all safety systems were available during the reactor trip. No violation of regulatory requirements occurred.

This finding is associated with the cross-cutting area of human performance, in that, the plant staff did not implement appropriate work controls for the troubleshooting activities and their technical review of the troubleshooting activities did not identify the potential for an undesired plant response. These errors negatively impacted the likelihood of an initiating event.

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

Mitigating Systems

Significance:  Jan 18, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM AN ADEQUATE RISK ASSESSMENT WHEN REQUIRED BY 10 CFR 50.65(a) (4) FOR THE 33 EDG DURING EMERGENT CONDITIONS

The inspectors identified a Green non-cited violation of 10 CFR 50.65(a)(4), when Entergy failed to re-perform a risk assessment on the 33 emergency diesel generator during a High Wind Warning issued by the National Weather Service on January 18, 2006, which had the potential to cause offsite power instability. Entergy performed a risk assessment in response to this finding and entered the deficiency into the corrective action program. Entergy's corrective actions included conducting a review of the site risk assessment process and severe weather procedure. The inspectors determined that the finding had a human performance cross cutting aspect because the work week manager failed to perform a

qualitative or quantitative risk assessment of external events for the maintenance and operations personnel failed to consider appropriate risk management actions described in the severe weather procedure.

The deficiency was greater than minor per appendix E of Manual Chapter 0612 example 7(e), because the deficiency is consistent with Manual Chapter 0612, appendix B, section 3, condition (5)(d). Specifically, the licensee risk assessment failed to consider unusual external conditions that were present or imminent (e.g., severe weather, offsite power instability). The 33 emergency diesel generator is risk significant for loss of offsite power considerations. Specifically, the licensee's risk assessment failed to consider external events' impact on risk significant systems, structures, and components, (included in Table 2 of the plant specific Phase 2 SDP, "Risk-Informed Inspection Notebook for Indian Point Nuclear Power Plant Unit 3 (Revision 2)") during the maintenance. The inspectors assessed the finding using Manual Chapter 0609, appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," Flowchart 1, "Assessment of Risk Deficit," and determined the finding to be of very low safety significance because the incremental core damage probability deficit was less than 1×10^{-6} .
Inspection Report# : [2006002\(pdf\)](#)

Significance:  Jan 10, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM AN ADEQUATE RISK ASSESSMENT WHEN REQUIRED BY 10 CFR 50.65(a)(4) FOR APPENDIX R EDG

The inspectors identified a Green non-cited violation of 10 CFR 50.65(a)(4), when Entergy failed to perform a risk assessment for the appendix 'R' emergency diesel generator when it was removed from service for planned maintenance on January 10, 2006. Entergy performed a risk assessment in response to this finding and entered the deficiency into their corrective action program. Corrective actions completed included a review of the risk assessment process and a management discussion of lessons learned with work week managers. Ongoing corrective action includes a review of risk assessment practices by the Operations Department. The inspectors determined that the finding had a human performance cross-cutting aspect because the work week manager did not perform a risk assessment for all risk significant systems removed from service in accordance with the Site Management Manual.

The deficiency was greater than minor per appendix E of Manual Chapter 0612 example 7(e), because the deficiency is consistent with Manual Chapter 0612, appendix B, section 3, condition (5)(a). Specifically, the licensee's risk assessment failed to consider risk significant systems, structures, and components, as well as support systems (included in Table 2 of the plant specific Phase 2 SDP, "Risk-Informed Inspection Notebook for Indian Point Nuclear Power Plant Unit 3 (Revision 2)") that were unavailable during the maintenance. The appendix 'R' emergency diesel generator is risk significant for power recovery following a loss of offsite power. The inspectors assessed the finding using Manual Chapter 0609, appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," Flowchart 1, "Assessment of Risk Deficit," and determined the finding to be of very low safety significance because the incremental core damage probability deficit was less than 1×10^{-6} .

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

Significance:  Dec 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE CORRECTIVE ACTION TO PRECLUDE REPETITIVE FAILURE OF CONTROL BUILDING EXHAUST FAN 33

A Green non-cited violation of 10CFR50 Appendix B, Criterion XVI, "Corrective Action" was identified by the inspectors involving Entergy's failure to take effective corrective action for a deficiency that resulted in repetitive failures of safety-related Control Building Exhaust Fan 33. The inspectors identified that the fan had eight functional failures between February 2002 and November 2005 due to building roof leaks and other causes under evaluation. Entergy has taken action to address the cause of the roof leaks and in response to this finding evaluated the potential causes for the failures, assigned corrective actions, and assessed the previous treatment of these failures under the corrective action program. This finding is related to the cross-cutting element of Problem Identification and Resolution.

This finding is greater than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance, because it did not result in the loss of a safety function or the loss of a single train of a safety system for greater than the Technical Specification allowed outage time and it is not potentially risk-significant due to external events. Because this finding is of very low safety significance and has been entered into the licensee's corrective action program (CR-IP3-2005-05548), this violation is being treated as a non-cited violation.

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

Significance:  Jun 30, 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 was determined to be greater than minor because the issue 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.

This finding is associated with the cross-cutting issue of problem identification and resolution in that it resulted from inadequate corrective actions associated with a previously identified issue.

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

Barrier Integrity

Significance:  Apr 01, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

CONTROL ROOM VENTILATION SYSTEM INOPERABLE DUE TO HUMAN PERFORMANCE MAINTENANCE ERROR

A Green self-revealing non-cited violation of Technical Specification 3.7.11 was identified involving Entergy's failure to maintain the proper configuration of a damper actuator in the safety-related control room ventilation system. On January 26, 2005, during tracer gas testing, Entergy discovered that control room ventilation system damper B was operating in the reverse direction due to its actuator and position indicator both being installed backwards. Entergy's investigation determined that the actuator and position indication were installed backwards during maintenance in 2001. As a result of the damper's actuator being reversed, the control room ventilation system would not have protected operators from toxic gases.

This finding is more than minor because Entergy failed to meet Technical Specification 3.7.11, "Control Room Ventilation System," which states that two control room ventilation system (CRVS) trains shall be operable. Contrary to this requirement, due to the improper installation of damper B, the CRVS was considered inoperable since May 5, 2001. Entergy's failure to properly maintain the proper configuration of the CRVS was determined to have very low safety significance (Green) based on a Phase 3 analysis in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." Although the damper misalignment represented a degradation of the barrier function of the control room against smoke and/or toxic gas intrusion, compensatory measures are pre-planned. In addition, the control room dose limits per 10 CFR 50, Appendix A, General Design Criteria (GDC) 19 would not have been exceeded during a design basis event. Because this failure to maintain the CRVS was entered into the licensee's corrective action program (reference CR-IP3-2005-00315), this violation is being treated as an NCV consistent with Section VI.A. of the NRC Enforcement Policy.

Inspection Report# : [2005002\(pdf\)](#)

Emergency Preparedness

Significance:  Dec 30, 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 declaration of an Unusual Event (UE) as 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 30, 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 the finding is associated with the EP cornerstone attribute of Facilities and Equipment (alarm notification system availability). It affects 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 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MAKE A 10 CFR 50.72(b)(3)(xiii) NOTIFICATION

A non-cited violation (NCV) 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 the short duration of the siren system problem, the fact that the NRC was informally notified, that back-up route alerting was available, and also that the capability to actuate the sirens via a manual siren initiation method was not lost. Subsequent to this event, the licensee 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 the licensee did not have formal procedures for, and had limited experience with, a potential alternate siren actuation 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. The inspectors evaluated the severity of this violation using the criteria contained in Supplement I - Reactor Operations and Section VI.A.1 of the NRC's Enforcement Policy and determined that this finding met the criteria for disposition as a non-cited violation.

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

Occupational Radiation Safety

Public Radiation Safety

Significance:  Apr 01, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

TRANSFER OF LOW-LEVEL RADIOACTIVE WASTE, BY ENTERGY INDIAN POINT ENERGY CENTER FOR DISPOSAL, THAT DID NOT MEET BARNWELL LOW-LEVEL WASTE DISPOSAL FACILITY LICENSE

A Green self-revealing non-cited violation of 10 CFR 20.2001 was identified associated with the transfer of waste, by Entergy's Indian Point Energy Center, for disposal, that did not meet Barnwell Low-Level Waste Disposal facility license requirements as required by 10 CFR 30.41. Specifically, a shipment (0205-12578) of low-level radioactive waste, from the Indian Point Energy Center, was identified on February 11, 2005, at the Barnwell Low-level Waste Disposal Facility, to have loose radioactive waste material inside the shipping cask (and outside of the waste disposal container) contrary to the disposal facility's site operating license (License No. 097, Amendment 47, Condition 61).

This finding is considered to be more than minor because Entergy failed to meet a waste disposal facility license requirement that was reasonably within its ability to foresee, correct, and prevent. This radioactive material control transportation finding was evaluated against criteria specified in NRC Manual Chapter 0609, Appendix D, and determined to be of very low safety significance (Green) because: 1) no external radiation or contamination limits were exceeded; 2) no package breach was involved; 3) no failure to make a notification was involved; and 4) although a low-level burial ground non-conformance was involved, burial ground access was not denied and no 10 CFR 61.55 waste classification issue was involved. In addition, although the finding did involve a certificate of compliance issue; the finding was a minor contents deficiency with low risk significance relative to causing a radioactive release to the public or public or occupational exposure. The small quantity of waste material was contained within the NRC approved shipping cask. Entergy temporarily suspended this type of shipment from the Indian Point Energy Center and placed the issue in the corrective action program.

Inspection Report# : [2005002\(pdf\)](#)

Physical Protection

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

Miscellaneous

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