

Indian Point 3

2Q/2006 Plant Inspection Findings

Initiating Events



Significance: Jun 30, 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 Nuclear Power Range Channel N42 Axial Offset Calibration.

The inspectors identified a non-cited violation of Title 10 of the Code of Federal Regulations (CFR), Part 50.65(a)(4) for failure to perform a risk assessment of emergent maintenance conducted on nuclear power range channel N42 on April 6, 2006. In response to this finding, Entergy performed a risk assessment and entered the deficiency into their corrective action program. Corrective actions completed included a review of the risk assessment process and promulgation of lessons learned by the work week manager. Ongoing corrective actions include a review of risk assessment practices by the Operations department and issuance of a new condition report to evaluate ongoing risk assessment deficiencies.

The inspectors determined that this finding is more than minor because it is similar to Example 7.e in Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," in that, the licensee's risk assessment failed to consider maintenance activities that could increase the likelihood of initiating events. 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} . The inspectors also determined that the finding had a cross-cutting aspect in the area of human performance because, during work planning for emergent maintenance on nuclear power range channel N42, the licensee did not appropriately incorporate risk insights 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\(pdf\)](#)



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\(pdf\)](#)

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\(pdf\)](#)

G

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\(pdf\)](#)

G

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\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

G**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\(pdf\)](#)

G**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

Physical Protection

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

Miscellaneous

Last modified : August 25, 2006