

## Indian Point 3 3Q/2014 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:** G Jun 20, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Deficient Design Control Results in Non-Qualified Component Installed in Harsh Environment for Unit 3 BFD-FCV-406B Actuator**

The team identified a Green non-cited violation of Title 10 Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion III, Design Control, because Entergy did not ensure the control air pressure regulator (IA-PCV-1548) for Unit 3 auxiliary boiler feedwater (ABFW) flow control valve BFD-FCV-406B was suited and designed to perform its safety-related function. Specifically, IA-PCV-1548 was not designed or qualified for use in the harsh environment area where it was located. Immediate corrective actions included evaluation of IA-PCV-1582 and BFD-FCV-406B to verify component operability. The issue was entered into the corrective action program as condition report IP3-2014-1364, to further evaluate both the extent-of-condition and the station's processes for maintaining configuration control over mechanical components installed in harsh environment areas.

The finding was more than minor because the finding was associated with the Design Control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of assuring the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, the issue was similar to example 3.j in Appendix E of Inspection Manual Chapter 0612, in that the design control issue resulted in a reasonable doubt of operability. The team determined the finding was of very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in a loss of operability.

The finding had a cross-cutting aspect in the area of Human Performance, Design Margin (H.6), because Entergy did not maintain the operational temperature design margin for the control air pressure regulator to the ABFW flow control valve. The margin between the ABFW pump room peak environmental temperature and the design/qualified temperature of IA-PCV-1582 was not carefully guarded and changed only through a systematic and rigorous process. (Section 1R17.1)

Inspection Report# : [2014007](#) (*pdf*)

**Significance:** G Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Operability Evaluation of Spalled Concrete in the Service Water Pit Structure**

The inspectors identified an NCV of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when Indian Point Energy Center (IPEC) staff did not evaluate spalled concrete in the Unit 3 service water pit ceiling slab to the extent required by Entergy procedures. Specifically,

IPEC staff referenced an operability screening for a less significant spalled condition at this location that occurred in 2012, characterized spalls that exposed load carrying rebar as “cosmetic,” and did not consider the ongoing spalling. When identified by the inspectors to licensee staff, the licensee walked down the area, initiated condition report (CR) IP3 2014 00405, and subsequently developed an operability determination and finite element analysis that determined the service water pit ceiling slab remained operable but degraded.

The failure of licensee staff to adequately perform an operability review of concrete degradation in the Unit 3 service water pit ceiling was contrary to self-imposed procedural standards and was within the licensee ability to foresee and correct and was a performance deficiency. The performance deficiency was determined to be more than minor because, if left uncorrected, it would have the potential to become a more significant safety concern. Specifically, the failure to evaluate the spalling and exposed rebar in the operability screen resulted in IPEC staff not identifying the causes of ongoing spalling and scheduling corrective actions in a timeframe shown to be effective to maintain structural capability. The inspectors determined the finding could be evaluated using IMC 0609, Attachment 0609.04, and “Initial Characterization of Findings.” The inspectors screened the finding through IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” using Exhibit 2, “Mitigating Systems Screening Questions.” The finding screened as of very low safety significance (Green) because it did not result in the loss of operability or functionality. The inspectors assigned a cross-cutting aspect in the area of Problem Identification and Resolution, Evaluation, because the licensee did not thoroughly evaluate the spalled condition and in completing the operability screening process, IPEC staff did not consider the additional spalled material that exposed rebar or causes of ongoing degradation when applying a prior operability screening for a previous less significant condition.

Inspection Report# : [2014002](#) (*pdf*)

**Significance:** G Jul 20, 2012

Identified By: NRC

Item Type: VIO Violation

**Failure to Protect Safe Shutdown Equipment from the Effects of Fire**

The inspectors identified a finding of very low safety significance (Green), involving a cited violation of Indian Point Unit 3 Operating License Condition 2.H to implement and maintain all aspects of the approved fire protection program. Specifically, ENO failed to protect required post-fire safe shutdown components and cabling to ensure one of the redundant trains of equipment remained free from fire damage as required by 10 CFR Part 50, Appendix R, Section III.G.2. In lieu of protecting a redundant safe shutdown train, ENO utilized unapproved operator manual actions to mitigate component malfunctions or spurious operations caused by postulated single fire-induced circuit faults. ENO submitted an exemption request (M1090760993) on March 6, 2009, in which it sought exemption from requirements of Paragraph III.G.2, to permit the use of OMAs upon which it had been relying for safe-shutdown in a number of fire areas. However, several OMAs within the exemption request were denied because ENO failed to demonstrate that the OMAs were feasible and reliable, or to appropriately evaluate fire protection defense-in-depth. ENO's performance deficiency delayed achieving full compliance with fire protection regulations and adversely affected post-fire safe shutdown. ENO has entered this issue into the corrective program for resolution. The inspectors found the manual actions in addition to roving fire watches in all affected areas to be reasonable interim compensatory measures pending final resolution by ENO.

ENO's failure to protect components credited for post-fire safe shutdown from fire damage caused by single spurious actuation is considered a performance deficiency. The performance deficiency was more than minor because it affected the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to an external event to prevent undesirable consequences in the event of a fire. Specifically, the use of operator manual actions during postfire safe shutdown is not as reliable as normal systems operation which could be utilized had the requirements of 10 CFR 50, Appendix R, Section III.G.2 been met and, therefore, prevented fire damage to credited components and/or cables. The inspectors used IMC 0609, Appendix F, Fire Protection Significance Determination Process, Phase 1 and a Senior Reactor Analyst conducted a Phase 3 evaluation, to determine that this finding was of very low safety significance (Green). This finding does not have a cross cutting

aspect because the performance deficiency occurred greater than three years ago when the exemption request was submitted to the NRC on March 6, 2009, and is not indicative of current licensee performance.

Inspection Report# : [2012008](#) (*pdf*)

**Significance:**  Jul 20, 2012

Identified By: NRC

Item Type: VIO Violation

### **Failure to Protect Safe Shutdown Equipment from the Effects of Fire**

The inspectors identified a finding of very low safety significance (Green), involving a cited violation of Indian Point Unit 2 Operating License Condition 2.K to implement and maintain all aspects of the approved fire protection program. Specifically, ENO failed to protect required post-fire safe shutdown components and cabling to ensure one of the redundant trains of equipment remained free from fire damage as required by 10 CFR Part 50, Appendix R, Section III.G.2. In lieu of protecting a redundant safe shutdown train, ENO utilized unapproved operator manual actions to mitigate component malfunctions or spurious operations caused by postulated single fire-induced circuit faults. ENO submitted an exemption request (M1090770151) on March 6, 2009, in which it sought exemption from requirements of Paragraph III.G.2, to permit the use of OMAs upon which it had been relying for safe-shutdown in a number of fire areas. However, several OMAs within the exemption request were denied because ENO failed to demonstrate that the OMAs were feasible and reliable, or to appropriately evaluate fire protection defense-in-depth. ENO's performance deficiency delayed achieving full compliance with fire protection regulations and adversely affected post-fire safe shutdown. ENO has entered this issue into the corrective program for resolution. The inspectors found the manual actions in addition to roving fire watches in all affected areas to be reasonable interim compensatory measures pending final resolution by ENO.

ENO's failure to protect components credited for post-fire safe shutdown from fire damage caused by single spurious actuation is considered a performance deficiency. The performance deficiency was more than minor because it affected the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to an external event to prevent undesirable consequences in the event of a fire. Specifically, the use of operator manual actions during post-fire safe shutdown is not as reliable as normal systems operation which could be utilized had the requirements of 10 CFR Part 50, Appendix R, Section III.G.2 been met and, therefore, prevented fire damage to credited components and/or cables. The inspectors used IMC 0609, Appendix F, Fire Protection Significance Determination Process, Phase 1 and a Senior Reactor Analyst conducted a Phase 3 evaluation, to determine that this finding was of very low safety significance (Green). This finding does not have a cross cutting aspect because the performance deficiency was not considered indicative of current licensee performance.

Inspection Report# : [2012009](#) (*pdf*)

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## **Barrier Integrity**

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## **Emergency Preparedness**

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## Occupational Radiation Safety

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## Public Radiation Safety

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## Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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## Miscellaneous

**Significance:** N/A Nov 08, 2013

Identified By: NRC

Item Type: FIN Finding

### PI&R Report Summary

#### Problem Identification and Resolution

The inspectors concluded that Entergy Nuclear Northeast (Entergy) was generally effective in identifying, evaluating, and resolving problems. Entergy personnel identified problems, entered them into the corrective action program at a low threshold, and in general, prioritized issues commensurate with their safety significance. Entergy appropriately screened issues for operability and reportability, and performed causal analyses that appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors also determined that Entergy implemented corrective actions to address the problems identified in the corrective action program in a timely manner. However, the inspectors identified one violation of NRC requirements in the area of problem evaluation that was not reflective of current performance.

The inspectors concluded that Entergy adequately identified, reviewed, and applied relevant industry operating experience to Indian Point operations. In addition, based on those items selected for review, the inspectors determined that Entergy's self-assessments and audits were thorough.

Based on the interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual corrective action program and employee concerns program issues, the inspectors did not identify any indications that site personnel were unwilling to raise safety issues, nor did they identify any conditions that could have had a negative impact on the site's safety conscious work environment.

Inspection Report# : [2013012](#) (*pdf*)

Last modified : November 26, 2014