

## Hatch 1

# 1Q/2015 Plant Inspection Findings

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### Initiating Events

**Significance:** G Sep 30, 2014

Identified By: Self-Revealing

Item Type: FIN Finding

#### **Unit Downpower Caused by Relief Valve Failure**

A self-revealing finding was identified when the opening of the 8th stage feedwater heater relief valves due to improper set point adjustment necessitated a Unit 1 downpower.

Failure to verify the 8th stage feedwater heater shell side relief valve set point was greater than normal system operating pressure as required by 52IT-MME-006-0 was a performance deficiency. This performance deficiency was more than minor because it was associated with the Equipment Performance attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective in that a manual reactor power reduction was required from 93 percent to 25 percent. The inspectors screened this finding as Green because the finding did not cause a reactor trip and the loss of mitigation equipment, a high energy line-break, internal flood, or a fire. The finding had a cross cutting aspect of “training” in the human performance area because the engineer performing the work order review and approval was newly qualified and did not know how to determine system operating pressures. [H.9] Inspection Report# : [2014004](#) (*pdf*)

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### Mitigating Systems

**Significance:** G Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

#### **Failure to Identify Embedded Conduit prior to Core Drill Operations**

A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, “Procedures, Instructions, and Drawings,” was identified for failure to identify existing embedded conduit in the vicinity of prescribed core drills location. The violation was entered into the licensee’s corrective action program (CAP) as condition report (CR) 902506.

Failure to provide adequate instructions in Design Change Package (DCP) SNC467474 to perform core drills in the Unit 2 control building to support conduit installations was a performance deficiency. This performance deficiency is more than minor because it affected the Equipment Performance attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective in that 2P41F316A was rendered incapable of performing its’ safety related function of closing in the event of an accident condition. The finding was screened as Green because the inoperability did not last longer than the technical specification (TS) allowed outage time. The inspectors determined the performance deficiency has a cross-cutting aspect of “work management” in the human performance area, because the licensee’s work process did not identify and manage the risk commensurate to the core drill work.

Inspection Report# : [2015001](#) (*pdf*)

**Significance:**  Dec 31, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to evaluate fire penetration 1T43-H528J**

The NRC identified a Green Non-Cited Violation (NCV) of Unit 1 License Condition 2.C.(3) Fire Protection when a fire penetration that deviated from three-hour rating requirements was not evaluated in accordance with Unit 1 Fire Hazards Analysis (FHA) Appendix I, "Evaluation of non-rated penetration seals in rated fire barriers." The licensee initiated roving fire watches and initiated corrective actions to restore compliance with Appendix I of the Unit 1 FHA. The violation was entered into the licensee's corrective action program as CR 865615.

Failure to implement the Unit 1 Fire Hazards Analysis (FHA) Appendix I, "Evaluation of non-rated penetration seals in rated fire barriers" was a performance deficiency. This performance deficiency was more than minor because it was associated with the Mitigating Systems cornerstone of the Protection Against External Factors (Fire) attribute and adversely affected the cornerstone objective in that the licensee failed to evaluate the as-found configuration of the penetration which resulted in a nonfunctional fire barrier. The inspectors determined the finding was Green because there was a fully functional automatic suppression system on either side of the fire barrier. The inspectors determined that this finding did not have an associated cross-cutting aspect because this finding is not reflective of current licensee performance.

Inspection Report# : [2014005](#) (*pdf*)

**Significance:**  Sep 30, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Implement Fire Surveillance Procedure Resulted in Isolation of All Fire Water to the Station**

The NRC identified a NCV of Technical Specification 5.4, "Procedures," for the licensee's failure to properly implement a valve lineup in a surveillance procedure for the fire protection system. The licensee inadvertently isolated all fire suppression water during the performance of a valve lineup. Although this condition was identified by the licensee, the inspectors identified weaknesses in the licensee's apparent cause determination. Therefore, this finding is being treated as an NRC-Identified finding. The violation was entered into the licensee's corrective action program as condition report 841493.

The licensee's failure to implement the correct valve lineup in accordance with procedure 42SV-FPX-015-0, "System Flush Fire Protection Water", was a performance deficiency. This performance deficiency was more than minor because the performance deficiency was associated with the Protection Against External Factors (Fire) attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective in that the failure to implement the correct valve lineup of 42SV-FPX-015-0 resulted in total fire suppression water isolation. The inspectors screened this finding as requiring a Phase 3 analysis, because 1) the duration factor was determined to be 0.01 (< 3 Days), 2) the summation of estimated fire frequency for the fire areas was calculated to 1.24E-01, and 3) the delta CDF calculation was greater than 1E-6 in Table 1.5.4. A Senior Reactor Analyst performed a Phase 3 analysis for the finding using licensee input from their fire PRA. Because of the short exposure time of approximately one hour, the change in risk was below 1E-6. Therefore, this finding is Green. The finding had a cross-cutting aspect of "resources" in the human performance area, because the licensee did not ensure that procedure 42SV-FPX-015-0 was adequate to support nuclear safety. [H.1]

Inspection Report# : [2014004](#) (*pdf*)

**Significance:**  Sep 30, 2014

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

### **Failure to Promptly Identify Malfunction of HPCI Exhaust Drain Pot Level Instrumentation**

A self-revealing NCV of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion XVI, “Corrective Actions,” was identified on May 1, 2014 when a control room annunciator and subsequent investigation of the high pressure coolant injection (HPCI) system led to the discovery that on March 4, 2014, the licensee failed to identify that a blown fuse was preventing the HPCI turbine exhaust drain pot from performing its automatic level control function. The licensee restored HPCI operability by replacing the fuse and draining the accumulated condensation from the HPCI turbine. The violation was entered into the licensee’s corrective action program as condition report 807394.

The failure to promptly identify and correct the failure of the exhaust drain pot level instrumentation, as required by 10 CFR 50, Appendix B, Criterion XVI, “Corrective Actions,” was a performance deficiency. This performance deficiency was determined to be more than minor because it was associated with the Equipment Performance - Reliability attribute of the Mitigating Systems cornerstone and it adversely affected the cornerstone objective in that the failure to promptly identify and replace the blown fuse resulted in the HPCI system inoperability from April 24 to May 1, 2014. The inspectors assessed this finding and determined it was Green because HPCI functionality was not lost. The inspectors determined the finding had a cross cutting aspect of “avoid complacency” in the human performance area because the licensee did not recognize the possibility of latent issues and inherent risk when evaluating CR 782581. [H.12]

Inspection Report# : [2014004](#) (*pdf*)

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## **Barrier Integrity**

**Significance:**  Jun 30, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Failure to Prove Operability Following the Failure of the Secondary Containment Surveillance Test**

Green. The inspectors identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion V, “Procedures, Instructions, and Drawings,” for the licensee’s failure to prove operability following a failure of a surveillance test as required by Hatch procedure 90AC-OAM-001-0, “Test and Surveillance Control,” Ver. 1.0, on May 12, 2014. To restore compliance, the licensee isolated the refueling floor dampers and re-performed Surveillance Requirement 3.6.4.1.3 with satisfactory results later that day on May 12, 2014. This violation was entered into the licensee’s corrective action program as condition report (CR) 819563.

Failure to prove operability following failure of a surveillance test as required by Hatch procedure 90AC-OAM-001-0, “Test and Surveillance Control,” Ver. 1.0, on May 12, 2014, was a performance deficiency. The performance deficiency affected the barrier integrity cornerstone and was more-than-minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, declaring equipment operable following a failed surveillance test would have the potential for the facility to operate outside of technical specification requirements. The inspectors screened this finding using IMC 0609, Appendix A, “The Significant Determination Process (SDP) For Findings At-Power”, dated June 19, 2012. The finding screened as Green per Section C of Exhibit 3, “Barrier Integrity Screening Questions,” because the finding only represented a degradation of the radiological barrier function provided by the standby gas treatment system. The inspectors determined the finding had a cross-cutting aspect of “training” in the human performance area, because the licensee did not ensure knowledge transfer of Surveillance Requirement 3.0.1 requirements to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. [H.9]

Inspection Report# : [2014003](#) (pdf)

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## Emergency Preparedness

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## Occupational Radiation Safety

**Significance:**  Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Failure to perform adequate surveys of air samples for alpha activity**

An NRC-Identified non-cited violation (NCV) of 10 CFR 20.1501(a) was identified for failure to perform an adequate survey. Air samples obtained in the reactor cavity and on the refuel floor during a contamination event indicating greater than 0.3 beta-gamma Derived Air Concentration (DAC) fraction level were not analyzed for alpha activity as required by the licensee's procedures. Previous characterization of the area had determined the area to be an Alpha Level II area requiring additional assessment and evaluation of air samples. This violation was entered into the licensee's CAP as CR 10033022.

This finding is greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of Program and Process (Monitoring and RP Controls) and adversely affected the cornerstone objective in that failure to identify potentially significant contributors to internal dose could lead to unmonitored occupational exposures. The finding was determined to be of very low safety significance (Green) because it was not related to As Low As Reasonably Achievable (ALARA) Planning and the ability to assess dose was not compromised during these instances. The cause of this finding was directly related to the cross-cutting aspect of leaders ensuing equipment, procedures, and other resources are available and adequate in the Resources component of the Human Performance area. [H.1]

Inspection Report# : [2015001](#) (pdf)

**Significance:**  Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Failure to perform complete analysis of air samples**

An NRC-Identified non-cited violation (NCV) of TS 5.4.1 was identified for the failure of the licensee to perform complete quantitative analysis of air samples using approved counting equipment as required by the licensee's procedures. NMP-HP-301, Step 5.6, provides guidance for quantitative evaluation of air samples. On February 16, and 25, 2015, air samples for work activities in the Reactor Pressure Vessel head (RPV) and the Reactor Water Cleanup (RWCU) System heat exchanger were not quantitatively analyzed or evaluated for alpha activity even though the areas had been identified as having elevated alpha contamination levels. The licensee entered the issue into their corrective action program (CAP) as CR 10034556.

The finding was more than minor because it was associated with the Occupational Radiation Safety Program attribute of exposure control and affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation from airborne radioactive material during routine civilian nuclear reactor operation. Failure to identify potentially significant contributors to internal dose could lead to unmonitored occupational exposures. The finding was determined to be of very low safety significance (Green) because it did not involve: (1) an as low as is

reasonably achievable finding, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose related to As Low As Reasonably Achievable (ALARA) Planning and the ability to assess dose was not compromised during this instance. The cause of this finding was directly related to the cross-cutting aspect of following processes, procedures, and work instructions in the Procedure Adherence component of the Human Performance area.

Inspection Report# : [2015001](#) (*pdf*)

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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

Last modified : June 16, 2015