

# Hatch 2

## 4Q/2010 Plant Inspection Findings

---

### Initiating Events

**Significance:** G Mar 31, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

**Failure to implement adequate configuration control on Unit 2 main generator stator water cooling temperature control instrument loop, 2N43-F100**

A self-revealing finding was identified for the licensee's failure to create, implement, and make available to maintenance personnel, quality processes or documents for configuration control. Specifically, the licensee failed to maintain the correct configuration of the stator water cooling (SWC) temperature control instrument loop air-operated valve, 2N43-F100, as required by licensee procedure NMP-ES-014, Air Operated Valve Program. The failure to implement adequate configuration control on the SWC temperature control instrument loop directly resulted in a Unit 2 reactor scram on June 20, 2009. The licensee has addressed this issue in their Corrective Action Program (CAP) and developed corrective actions in CR 2009106326. As part of the licensee's immediate corrective actions the Unit 2 SWC instrument loop was reconfigured to the correct alignment, and changes were made to procedure NMP-ES-014.

This performance deficiency was more than minor because it was associated with the Configuration Control attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability. Specifically, inadequate configuration control resulted in a Unit 2 reactor scram on June 20, 2009. The significance of this finding was screened using the Phase 1 of the Significance Determination Process (SDP) in accordance with NRC Inspection Manual Chapter 0609 Attachment 4. Because the finding contributed to a reactor scram, but did not affect mitigation equipment availability, the finding screened as Green. This finding had a cross-cutting aspect in the Resources component of the Human Performance area, because the licensee did not provide complete, accurate and up-to-date design documentation, procedures, and work packages, and correct labeling of components. Specifically, the licensee did not implement a means of configuration control of the SWC temperature control instrument loop. (H.2(c)). (Section 4OA3.1)

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

---

### Mitigating Systems

**Significance:** G Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to maintain safety related cables in a non-submerged environment**

•Green. The NRC identified a NCV of 10 CFR 50, Appendix B, Criterion III, Design Control, for the licensee's failure implement measures to assure that safety-related cables remained in an environment for which they were designed. Safety-related cables purchased and installed in underground electrical pull boxes at Hatch Nuclear Plant have been subjected to submergence, a condition for which they are not designed. To address this issue the licensee has performed the immediate corrective action of increasing the frequency of measuring water level and pump down of the pull boxes. The licensee initiated CR 2010104298 to address this issue.

This performance deficiency is more than minor because it is associated with the Design Control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, it is reasonable to conclude the cables may be in a degraded condition where the continued reliability of the cable cannot be ensured because: 1) the

licensee does not have a cable testing/monitoring program to detect degradation of inaccessible or underground power cables; 2) the cables have been subject to a submerged physical environment which is outside the cables design parameters; and 3) there have been documented failures of cables throughout the nuclear industry due to degradation caused by submergence in water. Because the finding affects the safety of an operating reactor, the significance of this finding was screened using the Phase 1 of the SDP in accordance with NRC IMC 0609, Attachment 4, Table 4a. The finding screened as Green, because the finding is a design or qualification deficiency confirmed not to result in loss of operability or functionality. This finding has a cross-cutting aspect in the Work Control component of the Human Performance area, because the licensee did not appropriately coordinate activities by incorporating actions where maintenance scheduling is more preventive than reactive. Specifically, the licensee did not schedule performance of procedure 52PM-Y46-001-0, Inground Pull Box and Cable Duct Inspection for Water, at a frequency that prevented safety related cable submersion (H.3(b)). (Section 1R06)

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

**Significance:**  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to follow procedure while in shutdown cooling to record corrected reactor water level**

•Green. The NRC identified a NCV of 10 CFR 50 Appendix B, Criterion V, Instructions, Procedures, and Drawings, for the licensee's failure to prescribe in procedure 34GO-OPS-015-2, Maintaining Cold Shutdown or Refueling Condition, appropriate documented instructions for recording and verifying reactor water level when reactor vessel level is greater than 60 inches and instrument 2B21-R605 is unavailable. To address this issue the licensee performed the immediate corrective action of initiating CR 2010104615 and has generated an action item to upgrade procedure 34GO-OPS-015-2.

This performance deficiency is more than minor because it is associated with the Human Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability of systems (ability of operators to monitor, trend, and maintain reactor water level) to prevent undesirable consequences. Because this finding is associated with the safety of a reactor while the unit was in cold shutdown and on residual heat removal shutdown cooling, NRC IMC 0609, Attachment 4, directs using IMC 0609, Appendix G, Shutdown Operations Significance Determination Process, to determine the significance of this finding. In Appendix G, Attachment 1, Checklist 6 was used because during the time period of this finding the unit was in cold shutdown, with a time to boil < 2 hours, and reactor coolant system level < 23 feet above the top of the reactor vessel flange. Each item in Appendix G, Attachment 1, Checklist 6 was determined to have been met, therefore per Figure 1 of Appendix G this finding screened as GREEN significance because a Qualitative Assessment was not required by Checklist 6. This finding has a cross-cutting aspect in the Work Control component of the Human Performance area, because the licensee did not plan and coordinate work activities consistent with nuclear safety including planned contingencies, compensatory actions, or abort criteria. Specifically, the licensee did not plan and coordinate the activity of transitioning the reference leg for reactor water level instrument 2B21-R605 with contingencies, compensatory actions, or abort criteria addressed to ensure measurable reactor water level was available to control room operators (H.3(a)). (Section 1R20)

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

---

## Barrier Integrity

---

## Emergency Preparedness

---

## Occupational Radiation Safety

---

## Public Radiation Safety

---

### 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.

---

### Miscellaneous

Last modified : March 03, 2011