

Hatch 1

3Q/2012 Plant Inspection Findings

Initiating Events

Significance:  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to follow transient combustible control requirements within the site's intake structure

An NRC identified Green non-cited violation (NCV) of Technical Specification 5.4, Procedures, was identified on August 14, 2012, for failure of the licensee to follow transient combustible control requirements within the site's intake structure. Specifically, inspectors discovered unattended transient combustibles within the intake, which is designated by site procedures as a transient combustible free zone. The licensee immediately removed the transient combustible from the intake structure, and entered this issue into their corrective action program as CR 500623.

Failure to follow transient combustible control requirements within the site's intake structure on August 14, 2012, was a performance deficiency. This performance deficiency is more than minor because it is associated with the Protection Against External Factors (Fire) attribute and adversely affected the Initiating Events cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during power operations. The performance deficiency is also similar to example 4.k. of IMC 0612 Appendix E, Examples of Minor Issues. Specifically, this issue meets the "Not minor if" criteria because identified transient combustibles were in a combustible free zone required for separation of redundant trains. Because this finding involved the administrative controls of transient combustibles, the inspectors utilized IMC 0609 Appendix F, Fire Protection Significance Determination Process, to assess the risk. This issue was assigned a low degradation rating in IMC 0609 Appendix F, step 1.2, because the degradation reflected a fire protection element whose performance and reliability was minimally impacted. Specifically the combustible liquids were not open and were contained within their approved containers. Because the finding was assigned a low degradation rating, this finding screened as Green per step 1.3. This performance deficiency has a cross-cutting aspect in the Work Practices component of the Human Performance area because personnel did not follow procedures for control of transients combustibles at the intake. [H.4(b)] (Section 1R05)

Inspection Report# : [2012004](#) (*pdf*)

Mitigating Systems

Significance:  Sep 30, 2012

Identified By: NRC

Item Type: FIN Finding

Licensed operator requalification annual operating test administration issues

An NRC-identified finding (FIN) was identified for the licensee's failure to adhere to licensed operator requalification examination standards during the administration of an annual operating test. Specifically, the licensee failed to adhere to the examination guide to allow adequate time for operating crews to respond to planned events, and the licensee failed to correct the error before finalizing operator evaluation and critique documentation. This affected the licensee's

ability to effectively test and evaluate operator performance in response to a simulated malfunction in the automatic scram circuitry. As part of their immediate corrective action, the licensee re-evaluated the affected operators and entered the issue into their corrective action program.

This performance deficiency was more than minor because it was associated with the Human Performance attribute of the Mitigating Systems Cornerstone, and it adversely affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences.

Specifically, the failure to adhere to scenario examination administration standards adversely affected the quality of the operating exams, which test licensed operator performance in order to ensure timely and accurate mitigating actions after an event. Using Inspection Manual Chapter 0609, Appendix I, Licensed Operator Requalification Significance Determination Process, this finding was determined to be of very low safety significance (Green) because it occurred in the simulator and was not an actual plant event, and the crew whose scenario was administered with the error was re-evaluated with an alternate scenario prior to resuming on-shift duties. The cause of the finding was related to the cross-cutting aspect of training of personnel and sufficient qualified personnel under the Resources component of the Human Performance cross-cutting aspect, because the scenario guide's narrative description of the required malfunction sequencing did not match the listed simulator operator actions in the body of the scenario guide. [H.2(b)] (Section 1R11)

Inspection Report# : [2012004](#) (pdf)

Significance: G Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Removal of scaffolding built to allow implementation of Unit 1 manual operation of the containment hardened vent

The inspectors identified a non-cited violation (NCV) of Hatch Unit 1 Operating License condition 2.C. (4.c) for failure to maintain an adequate strategy to vent the primary containment through the installed hardened vent piping without power. The ability of the licensee to perform the procedure to manually vent primary containment was questioned during an NRC walk down due to the removal of scaffolding installed to allow operator access to manually operate the containment hardened vent. Immediate corrective actions taken by the licensee include erecting the scaffold back in place, and adding multiple barriers to prevent the removal of the scaffolding. This violation was entered into the licensee's corrective action program as condition report (CR) 438782.

The removal of scaffolding built to allow implementation of Unit 1 manual operation of the containment hardened vent is a performance deficiency. This performance deficiency affects the Mitigating Systems Cornerstone, and is more than minor because it could reasonably be viewed as a precursor to a significant event. Specifically, the inability of the licensee to be able to perform Procedure 31EO-TSG-001-0, Attachment 10, Manually Open Containment Vent Lines affects the ability to vent primary containment following a station blackout event. The inability to manually vent primary containment utilizing the hardened vent would result in the over pressurization and subsequent failure of primary containment. This finding was assessed using IMC 0609 Appendix L, B.5.b Significance Determination Process, and Table 2. The inspectors determined the finding did not meet the criteria listed within Table 2 for greater than green significance; therefore this finding was screen as Green. The inspectors determined this performance deficiency has a cross-cutting aspect in the area of human performance and resources component because the licensee did not have complete, accurate, and up to date work packages, procedures, or labeling of the scaffold to prevent removal. [H.2(c)] (Section 1R05)

Inspection Report# : [2012003](#) (pdf)

Significance: G Jun 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Mispositioning and subsequent failure of Hatch Unit 1 reactor control rod blade

A self revealing non-cited violation of 10 CFR 50, Appendix B, Criterion V. Instructions, Procedures, and Drawings, was identified for failure to accomplish 2004 control rod blade movements for the Unit 1 reactor in accordance with prescribed procedures. Corrective actions taken by the licensee included replacing a control rod blade (CRB) with a new blade, and changing Procedure 42FH-ERP-001-0, Control Rod Blade Unlatching, Installation, Removal and Exchange to require peer checks, independent verification, and serial number verification for all future CRB movements. This violation has been entered into the licensee's corrective action program as CR 193771.

Failure to accomplish the CRB shuffle in accordance with prescribed procedures is a performance deficiency. Specifically, during the 2004 CRB shuffle, three CRBs were installed in positions different from the position required by Procedure 42FH-ERP-001-0, Control Rod Blade Unlatching, Installation, Removal and Exchange. The performance deficiency affects the Mitigating Systems Cornerstone and was determined to be more-than-minor because this issue is similar to IMC 0612, Appendix E, example 4.c, not minor if the retest revealed that the data was actually outside of the acceptable range. This finding was assessed using IMC 0609 Attachment 4, Phase 1 - Initial Screening and Characterization of Findings. The inspectors determined the finding screened as Green per Table 4a because all the screening questions under the Mitigating Systems column were answered "No." Because the procedure was implemented in 2004, the performance deficiency occurred outside the past three years and no cross-cutting aspect is assigned. (Section 40A2.2)

Inspection Report# : [2012003](#) (pdf)

Significance:  Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate surveillance procedures for evaluating accumulated gas in the HPCI and RCIC systems

The inspectors identified a non-cited violation of Hatch Nuclear Plant Technical Specification 5.4, "Procedures," with five examples for the licensee's failure to establish, implement and maintain surveillance procedures for the high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) systems. The deficiencies associated with the surveillance procedures precluded adequate evaluation of the as-found condition of those systems against acceptance criteria which serve as a basis for system operability. The licensee entered these five issues into their corrective action program under CRs 440646, 441302, 441333 and 441863. The immediate corrective actions included performing ultrasonic inspection of the surveillance test points which verified the absence of gas pockets. Interim corrective actions included implementing the performance of ultrasonic inspection of the surveillance test points immediately prior to venting the system in accordance with the surveillance procedure as a means to accurately quantify and evaluate the effects of any gas discovered.

For the five examples identified, the failure to establish, implement and maintain adequate surveillance procedures to identify and evaluate accumulated gas in the HPCI and RCIC systems were performance deficiencies. The performance deficiencies were determined to be more than minor because they affected the procedure quality attribute of mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiencies challenged the assurance that procedures used to perform surveillance testing of the HPCI and RCIC systems had adequately identified and evaluated the as-found condition of those systems as a basis for continued system operability. Additionally, if the performance deficiencies were left uncorrected, assurance was challenged that any future voids in the HPCI and RCIC system would be adequately identified and evaluated. The team screened the finding in accordance with Inspection Manual Chapter 0609, "Significance Determination Process," Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," and determined the finding was of very low safety

significance (Green). These performance deficiencies were assigned a cross-cutting aspect in the corrective action component of the problem identification and resolution area because the licensee did not take adequate corrective actions in 2009 when weaknesses were identified with the surveillance procedures (P.1 (d)). (Section 40A5.3)

Inspection Report# : [2012003](#) (*pdf*)

Significance:  Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to assess and manage the increase in risk when removing residual heat removal and core spray from service

Green. A self-revealing non-cited violation (NCV) of 10 CFR 50.65(a)(4) became apparent during the Unit 1 refueling outage when the residual heat removal shutdown cooling discharge valve, 1E11-F017B, failed to open electrically from the control room. The inspectors subsequently determined, on February 17, 2012, the licensee had failed to assess the increase in risk to the plant prior to hanging a tagout which removed reactor coolant system injection capability from all four residual heat removal pumps and both core spray pumps. This resulted in an unplanned Orange risk condition for Unit 1 versus the previously assessed Green risk condition. The licensee removed the tagout and restored operation of residual heat removal pump and core spray pump discharge valves to electrically open and restore compliance. This violation has been entered into the licensee's corrective action program as condition report (CR) 410382.

Failure to perform an adequate risk assessment prior to hanging tagout 1-DT-11-1E11-00310 and removing residual heat removal and core spray equipment from service is a performance deficiency. The performance deficiency affects the Mitigating Systems Cornerstone and was determined to be more-than-minor because this issue is similar to IMC 0612, Appendix E, example 7e, not minor if the overall elevated risk would put the plant in a higher licensee-established risk category. Because this issue involves the licensee's assessment and management of risk associated with performing maintenance activities under shutdown conditions, the inspectors utilized IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," and IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process." The Phase 1 screening required a Senior Reactor Analyst (SRA) to perform an independent risk assessment because the licensee's shutdown risk assessment involved only qualitative analysis of the plant configuration. A Phase 3 analysis was performed by the regional SRA to characterize the risk associated with the performance deficiency. IMC0609, Appendix K requires performance of a risk analysis for Maintenance Rule issues. The SRA used IMC0609, Appendix G, which is a tool to estimate shutdown risk, to bound the risk of the deficiency. With the water level at the level for fuel transfer, and an exposure time of less than 3 days, the SRA used Worksheet 3 of IMC0609, Appendix G, Attachment 3. The dominant sequence was a loss of inventory, with a failure to line up an alternate source of water. Recovery credit was given for manually opening the valves or using alternate water sources due to the length of time available before fuel damage. The finding was subsequently determined to be Green. This performance deficiency has a cross-cutting aspect in the Decision-Making component of the Human Performance area, because the licensee failed to validate the underlying assumptions and identify possible unintended consequences when hanging tag out 1-DT-11-1E11-00310 and removing residual heat removal and core spray equipment from service. [H.1(b)] (Section 1R13)

Inspection Report# : [2012002](#) (*pdf*)

Significance:  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Cables for Fire Safe Shutdown Not Protected In Accordance With 10 CFR 50 Appendix R Section III.G.2

Green. The NRC identified a Green non-cited violation (NCV) of 10 CFR Part 50, Appendix R, Section III.G.2, for

the licensee's failure to protect one of the redundant trains of cables, located in the same fire area (FA), needed to achieve post-fire safe shutdown (SSD) from fire damage for multiple fire areas for Unit 1. Upon discovery, the licensee entered this item into their corrective action program as Condition Report (CR) 100755. As corrective actions, the licensee had implemented modifications to eliminate the need for local operator manual actions (OMAs) to achieve SSD. However, the inspectors discovered that, for FZ 0014K, the modifications did not adequately eliminate reliance on local OMAs to achieve SSD. The licensee entered this condition into the corrective action program as CR 364483. At the time of the exit meeting, the licensee planned to reroute affected cables out of the affected FA.

The licensee's failure to protect one train of cables and equipment necessary to achieve post-fire SSD from fire damage for fire areas designated in the fire protection program as meeting 10 CFR 50 Appendix R, Section III.G.2, is a performance deficiency. This finding is more than minor because it is associated with the reactor safety mitigating system cornerstone attribute of protection against external events (i.e., fire). Failure to protect safe shutdown cables and equipment from fire damage affects the reactor safety mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors used NRC Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," and determined the finding was of very low safety significance (Green). Inspectors determined that no cross cutting aspect was applicable to this performance deficiency because this finding was not indicative of current licensee performance. (Section 40A5.3)

Inspection Report# : [2011005](#) (*pdf*)

Barrier Integrity

Significance: G Sep 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to establish adequate preventative maintenance for the safety related main control room air conditioning units

A self revealing Green NCV (with two examples) of Hatch Unit 1 and Unit 2 TS 5.4, Procedures, was identified for failure to establish and perform preventive maintenance activities to replace the B main control room condensing unit overload in the MS2 motor starter components prior to age related failure of the component. The licensee entered this issue into their corrective action program as CR 195542.

Failure to establish and perform preventive maintenance activities to replace aged B main control room condensing unit overload in the MS2 starter components prior to their failure is a performance deficiency. Specifically, section 5.4 of NMP-ES-006, "Predictive Maintenance Implementation and Continuing Equipment Reliability Improvement", requires, in part, that the licensee develop and maintain a documented maintenance strategy with recommended time-based preventive maintenance taking into account OEM/Vendor recommendations and other data affecting component reliability. This performance deficiency is more than minor because it adversely affected the SSC and Barrier Performance attribute of the barrier integrity cornerstone objective to ensure physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors evaluated the finding in accordance with IMC 0609, Attachment 4, Initial Characterization of Findings, using table 2 Cornerstones Affected by Degraded Condition or Programmatic Weakness. The finding affected the barriers cornerstone. Further evaluation was required using Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Based on Appendix A, Exhibit 3 Barrier Integrity Screening Questions, the finding represented a degradation of the radiological barrier function provided for the control room, spent fuel pool, or SBT system and therefore screened as Green. This

finding has a cross-cutting aspect in the Operating Experience component of the Problem Identification and Resolution area because the licensee did not implement operating experience through changes to station procedures when prior age related failures were identified at the site. [P.2(b)] (Section 1R12)

Inspection Report# : [2012004](#) (*pdf*)

Significance:  Sep 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to follow clearance procedures for returning the A main control room air conditioning unit to service following maintenance

A self-revealing Green NCV of Hatch Unit 1 and Unit 2 Technical Specification 5.4. Procedures, was identified on June 21, 2012, when the “C” main control room air conditioning unit tripped due to loss of power when the licensee operated an electrical breaker outside of procedural guidance. The licensee entered this issue into their corrective action program as CR 473701.

Failure to restore the “A” main control room air conditioner tagout clearance in accordance with the tag removal list on June 21, 2012, was a performance deficiency. Specifically, tagout 1-DT-1Z41-00168(004) required the normal supply breaker for 1R24S029 to be maintained open but the breaker was improperly positioned closed instead. This performance deficiency was more-than-minor because it adversely affected the Human Performance attribute of the Barrier Integrity Cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclides caused by accidents or events. The inspectors evaluated the finding in accordance with IMC 0609, Attachment 4, Initial Characterization of Findings, using Table 2 Cornerstones Affected by Degradation Condition or Programmatic Weakness. The inspectors determined that the finding affected the barriers cornerstone. Further evaluation was required using IMC 0609 Appendix A, The Significance Determination Process (SDP) for Findings At-Power. Based on Appendix A, Exhibit 3, Barrier Integrity Screening Questions, the finding represented a degradation of the radiological barrier function provided for the control room and therefore screened as Green. The inspectors determined this finding has a cross-cutting aspect in the Work Practices component of the Human Performance Area because the licensee did not communicate the human error prevention technique of holding an adequate pre-job brief for the restoration of the electrical portion of the tagout. [H.4(a)] (4OA2.2)

Inspection Report# : [2012004](#) (*pdf*)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : November 30, 2012