

# Byron 1

## 2Q/2012 Plant Inspection Findings

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### Initiating Events

**Significance:**  Jun 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Leakage Detection Trough with Large Accumulation of Boric Acid Identified**

A finding of very low safety significance and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified by the inspectors when licensee personnel failed to identify boric acid accumulation that would have impeded flow from the leakage detection trough to the sump. The licensee entered this issue into the Corrective Action Program (CAP) as IR 1339957. Corrective actions included removing the boric acid accumulation from the leakage detection trough and passing water through the drain to verify associated piping was free of obstruction.

The finding was determined to be more than minor because the finding was similar to IMC 0612, Appendix E, Example 4(a). Example 4 focuses on procedural errors. The “not minor if” example indicates that, if a later evaluation shows that the safety-related equipment was negatively impacted, it is more than minor. The flow obstruction in the leakage detection trough would have delayed the flow of water to the sump thereby delaying any subsequent alarm. Therefore, this performance deficiency negatively impacted the Initiating Events Cornerstone objective of Equipment Performance. This finding has a cross-cutting aspect in the Corrective Action Program component of the Problem Identification and Resolution cross-cutting area because licensee personnel failed to ensure that an issue potentially impacting nuclear safety was promptly identified and fully evaluated, and that actions were taken to address safety issues in a timely manner, commensurate with their significance [P.1(d)].

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

**Significance:**  Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Have Instructions Appropriate to the Circumstances**

A self-revealed finding with two examples of very low safety significance and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified when licensee personnel failed to properly torque an RCS pressure boundary valve closed and failed to properly re-install a Reactor Containment Fan Cooler (RCFC) interior access panel during the previous Unit 1 refueling outage. The licensee replaced the valve and reinstalled the RCFC internal access panel upon identification and entered the item into the Corrective Action Program (CAP) as IR 1339375 and IR 1347450, respectively. Additional corrective actions included modifying the installation procedure to add clarity in the selection of the proper torque value and to add detail and tracking aids for the RCFC interior access panels.

In accordance with IMC 0612, Appendix B, “Issue Screening,” the first examples was determined to be more than minor because it was associated with the Procedure Quality attribute of the Initiating Events Cornerstone and adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, this issue increased the risk of a small break loss of coolant accident. The inspectors performed a Phase 1 SDP screening using IMC 0609, Attachment 4, Table 4a, “Characterization Worksheet for Initiating Events Cornerstone.” The inspectors determined that the finding would not result in exceeding the Tech Spec limit for any RCS leakage or could have likely affected other mitigation systems resulting in a total loss of their safety function.

The second example was determined to be more than minor because the finding was associated with the Configuration Control attribute of the Barrier Integrity Cornerstone and adversely affected the cornerstone objective of providing

reasonable assurance that physical design barriers, including the containment, protect the public from radionuclide releases caused by accidents and events. Specifically, this issue decreased the availability and reliability of the RCFCs for use during a design basis accident. The inspectors determined that the issue was of very low safety significance (Green) because the finding did not represent a degradation of the radiological barrier function, did not represent a degradation of the barrier function of the control room, did not represent an actual open pathway in the physical integrity of reactor containment, and did not involve an actual reduction in function of hydrogen igniters in the reactor containment.

Both examples of the finding had a cross-cutting aspect in the Work Practices component of the Human Performance cross-cutting area [H.4(a)] because licensee personnel failed to properly utilize human error prevention techniques. These two examples of a finding with a cross-cutting aspect were considered as a single NCV.

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

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## Mitigating Systems

**Significance:**  Jun 15, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Non-Conforming 480/120 Vac Motor Control Contactors**

The inspectors identified a finding of very low safety significance and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure qualified components were installed in the plant. Specifically, purchase orders did not specify the minimum pickup voltage for NEMA Size 1 through Size 4 safety-related motor-control contactors such that the installed contactors were not rated to function at the design basis minimum voltage. The licensee entered the issue into their corrective action program and based on a sample testing of contactors demonstrated there was adequate margin between the highest found minimum-pickup voltage and the design basis pickup voltage.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating System Cornerstone attribute of Design Control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, having installed contactors that may not function under degraded voltage conditions could affect the operability of multiple safety-related structures, systems and components during an event. The finding screened as of very low safety significance (Green) because the finding involved a design or qualification deficiency that did not result in a loss of operability. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2012007](#) (pdf)

**Significance:**  Jun 15, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Verify the CCW System Capability to Withstand a Thermal Barrier Break**

The inspectors identified a finding of very low safety significance and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure the component cooling water (CCW) system was capable of withstanding a reactor coolant pump thermal barrier break. Specifically, when assuming a single failure of the automatic isolation function, the licensee failed to evaluate the break effect on the CCW system during the 3 minutes postulated to isolate the leak. The licensee entered the issue into their corrective action program; verified the CCW system would be able to withstand the postulated event, and planned to perform a detailed evaluation of the effect of a thermal barrier break on the CCW system.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating

Systems Cornerstone attribute of Design Control and objective of ensuring the capability of the system to respond to an initiating event to prevent undesirable consequences. Specifically, the failure to evaluate the effect of the thermal barrier rupture on the CCW system created reasonable doubt whether the system would be capable of withstanding the applied forces of this event. The finding screened as very low safety significance (Green) because the design deficiency did not result in a loss of operability or functionality. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2012007](#) (pdf)

**Significance:**  Jun 15, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Non-Conservative Calibration Tolerance Limits for Electrical Relay Settings**

The inspectors identified a finding of very low safety significance and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to specify in a design calculation the allowable relay setpoint calibration tolerances. Specifically, the acceptance criteria used in relay setting calibration procedures was not bounded by the relay setting design calculations. The licensee entered this finding into their corrective action program and verified the calibrated relay settings would still provide adequate electrical protection coordination capability.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Equipment Performance, and 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 adequately evaluate the design requirements of the relay settings could have resulted in a loss-of-relay coordination and could allow a fault on one piece of equipment to propagate to other safety-related equipment outside the designed isolation boundary. The finding screened as very low safety significance (Green) because the finding was design deficiency confirmed not to result in a loss of operability or functionality. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2012007](#) (pdf)

**Significance:**  Jun 15, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Design Analyses Did Not Adequately Address Potential Flooding of the Auxiliary Building**

The inspectors identified a finding of very low safety significance and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to adequately analyze potential design basis internal flooding events in the auxiliary building. Specifically, the licensee's analysis did not account for the possible single failure of an essential service water motor-operated isolation valve or its associated power supply, which would have prevented break isolation within 30 minutes. The licensee entered the issue into their corrective action program; verified essential service water piping in the auxiliary building would meet the "crack exclusion" pipe stress criteria, and planned to the revise the flooding analysis.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of Design Control and objective of ensuring the capability of the system to respond to an initiating event to prevent undesirable consequences. Specifically, the failure to adequately analyze potential design basis internal flooding events in the auxiliary building would affect the capability of safety-related equipment to withstand the postulated event. The finding screened as very low safety significance (Green) because the design deficiency did not result in a loss of operability or functionality. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2012007](#) (pdf)

**G****Significance:** Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Incomplete Component Cooling Water System and Essential Service Water System Code Examinations**

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR 50.55a(g)(4) when licensee personnel failed to perform system leakage testing in a timely manner as required by Section XI of the ASME Code following modification activities that added piping and associated welds between Unit 1 and Unit 2 CC and SX systems. The licensee performed the required leakage tests which were all found to be acceptable.

Inspection Report# : [2012002](#) (*pdf*)**G****Significance:** Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Control the Operating Status of Eight New Valves Affecting Two Safety Related Systems**

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR Part 50, App B, Criterion XIV, "Inspection, Test, and Operating Status," when licensee personnel failed to control the operating status of eight manual isolation valves that were installed as part of a modification. The licensee placed temporary identification tags on the valves and initiated a clearance order to control the position of these valves.

Inspection Report# : [2012002](#) (*pdf*)**G****Significance:** Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO IDENTIFY VOIDED SECTIONS OF AF PIPING**

The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," when licensee personnel failed to identify non-conforming conditions associated with voided piping within the Unit 1 and Unit 2 safety-related diesel driven auxiliary feedwater (AF) systems (i.e., between the AF 006B and 017B valves.) These sections of piping had been historically voided until they were recently re-design to be filled and maintained filled with water to address a NRC identified 10 CFR Part 50, Appendix B, Criterion III, "Design Control" Green non-cited violation (NCV). The licensee entered this issue into their corrective action program as IR 1296819, IR 1292337, and IR 1295760. Corrective actions include instituting a Operations standing order, replacement of the Unit 1 AF drain valve, and a capping the Unit 2 AF drain valve.

The inspectors determined that the failure to identify the voided sections of AF piping prior to and following the inspector's observations and interactions with licensee staff and management was a performance deficiency. The inspectors determined that the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 Initial Screening and Characterization of findings," Table 4a for the Mitigation Systems cornerstone. Specifically, the inspectors answered yes to question 1; design or qualification deficiency confirmed not to result in a loss of operability or functionality. This conclusion was reached after conservatively assuming that both sections of piping were completely voided and after reviewing tests performed by the licensee in response to the previously documented design control violation. This finding was associated with a cross-cutting aspect in the Human Performance, Resources component H.2(c). Specifically, the licensee did not have adequate procedures to ensure that these sections of piping were maintained filled with water. (Section 1R15)

Inspection Report# : [2011005](#) (*pdf*)**G****Significance:** Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**HIGH ENERGY LINE BREAK OPEERABILITY EVALUATION**

The inspectors identified that the licensee did not meet multiple Operability Determination Process standards after

identifying a non-conservative condition related to assumed closure times for hazard barrier dampers separating the turbine building from various safety-related rooms within the Auxiliary Building. The wall between these two buildings that house the dampers are commonly referred to as the “L-wall.” The issues raised by the inspectors during their review of the Operability Evaluation (Revision 1 and Revision 2) resulted in the station: re-evaluating the non-conservative condition against aspects of the current licensing basis not previously considered, including applicable affected extent of condition room areas, and evaluating multiple common mode failures that the station had not previously considered under this review. In addition to the issues with the Operability Evaluation, the inspectors identified that applicable station calculations of record did not assume the correct licensing basis single failure. The licensee entered these issues into their Corrective Action Program as IR 1184258, IR 1237133, IR 1238611, IR 1240295, IR 1244251, and IR 1276895. Corrective actions included two revisions of the Operability Evaluation, an assignment to reconstitute the applicable design basis calculation records, and plans to re-design “L-wall” HELB ventilation barriers to restore compliance.

This performance deficiency was determined to be more than minor because it was similar to the “not minor if” aspect of NRC Manual Chapter 0612, Appendix E, “Example of Minor Issues” example “3j” and dissimilar from the “minor because” aspect of this example to reasonably conclude that the finding was associated with the Mitigating Systems Design Control attribute and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors determined that the finding could be evaluated using the SDP in accordance with IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” Table 4a, for the Mitigating Systems Cornerstone. The inspectors answered “No” to all of the Mitigating Systems Cornerstone questions in Table 4a of IMC 0609.04, and, as a result, the finding screened as having very low safety significance (Green). This finding has a cross-cutting aspect in the Corrective Action Program component of the Problem Identification and Resolution cross-cutting area [P.1(c)] since the licensee failed to adequately evaluate a non-conforming condition associated with hazard barrier closure times. As a result, the licensee would not have implemented effective corrective actions to resolve the non-conformance. (Section 1R15)

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

**Significance:**  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **FAILURE TO IDENTIFY HAZARDOUS MATERIALS ON TRANSPORTATION MANIFEST**

A self-revealed finding of very low safety significance and an associated NCV of 10 CFR 71.5 was evaluated by the inspectors. Specifically, the licensee failed to comply with 49 CFR 172.203(c) and shipped a package of radioactive material with a transport manifest that did not document all applicable hazardous substances. The issue was entered in the licensee’s corrective action program as IR 1285148. The licensee’s immediate corrective actions were to provide a corrected copy of the transport manifest to the waste processor and to initiate an apparent cause investigation to identify corrective actions to avoid recurrence.

The finding is more than minor because it was associated with the Public Radiation Safety cornerstone attribute of Program and Process (transportation program) and affected the cornerstone objective, in that, providing incorrect information, as part of hazard communication, could impact the actions of response personnel. The finding was determined to be of very-low safety significance because using the Public Radiation Safety, significance determination process (SDP) the inspector determined that: (1) radiation limits were not exceeded; (2) there was no breach of a package during transit; (3) it did not involve a certificate of compliance issue; (4) it was not a low level burial ground nonconformance; and (5) it did not involve a failure to make notifications or provide emergency information. These events occurred because the shipper did not control the items placed in the waste packages and was not present when the boxes were loaded. Consequently, the inspectors determined that the cause of this incident involved a cross-cutting component in the human performance area for work control H.3(b). Specifically the licensee did not coordinate work activities by incorporating actions to address the impact of the work on different job activities, and the need for work groups to maintain interfaces with offsite organizations, and communicate, coordinate, and cooperate with each other during activities in which interdepartmental coordination is necessary to assure adequate human performance. (Section 2RS8)

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

**Significance:** SL-IV Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**MODIFICATION OF THE AUXILIARY FEEDWATER SYSTEM WITHOUT PRIOR NRC APPROVAL**

The inspectors identified a Severity Level IV NCV of 10 CFR 50.59, "Changes, Tests, and Experiments," when licensee personnel failed to obtain a license amendment prior to implementing a proposed change to the plant that resulted in a more than minimal increase in the likelihood of occurrence of a malfunction of a structure, system or component important to safety previously evaluated in the Updated Final Safety Analysis Report (UFSAR). Specifically, the licensee performed a modification to the facility that permitted the Unit 1 and Unit 2 "A" Auxiliary Feedwater (AF) trains to be shared between units and the 10 CFR 50.59 evaluation that was performed reached the erroneous conclusion that prior NRC approval was not required. The licensee issued a Standing Order to modify the Emergency Operating Procedure which governed the use of the modification and planned to submit a License Amendment Request (LAR) to the NRC for this design change. The issue was entered into the licensee's corrective action program as IR 1257908.

The violation was determined to be more than minor because the inspectors determined that the change required prior NRC approval. Violations of 10 CFR 50.59 are dispositioned using the traditional enforcement process because they are considered to be violations that potentially impede or impact the regulatory process. In accordance with Section 6.1.d.2 of the NRC Enforcement Policy, this violation is categorized as Severity Level IV because the resulting changes were evaluated by the SDP as having very low safety significance. (Section 40A2.3)

The associated performance deficiency is tracked as item 2011-004-03.

Inspection Report# : [2011004](#) (pdf)

**G**

**Significance:** Sep 30, 2011

Identified By: NRC

Item Type: FIN Finding

**MODIFICATION OF THE AUXILIARY FEEDWATER SYSTEM WITHOUT PRIOR NRC APPROVAL**

The inspectors identified a finding of very low safety significance (Green) when licensee personnel failed to obtain a license amendment prior to implementing a proposed change to the plant that resulted in a more than minimal increase in the likelihood of occurrence of a malfunction of a structure, system or component important to safety previously evaluated in the Updated Final Safety Analysis Report (UFSAR). Specifically, the licensee performed a modification to the facility that permitted the Unit 1 and Unit 2 "A" Auxiliary Feedwater (AF) trains to be shared between units and the 10 CFR 50.59 evaluation that was performed reached the erroneous conclusion that prior NRC approval was not required. The licensee issued a Standing Order to modify the Emergency Operating Procedure which governed the use of the modification and planned to submit a License Amendment Request (LAR) to the NRC for this design change. The issue was entered into the licensee's corrective action program as IR 1257908.

The finding was determined to be more than minor because the inspectors determined that the change required prior NRC approval. The underlying technical issue evaluated through the SDP determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Mitigating Systems Cornerstone. Specifically, the inspectors answered "Yes" to Question 1 of the Mitigating Systems Cornerstone column of the Phase 1 worksheet because the inspectors concluded that this was a change confirmed not to result in the loss of operability. Based upon this Phase 1 screening, the inspectors concluded that the issue was of very low safety significance (Green). This finding had a cross-cutting aspect in the Operating Experience component of the Problem Identification and Resolution (PI&R) cross-cutting area [P.2.(b)] because the licensee failed to make adequate use of known industry operating experience in the screening of a modification prior to installation. (Section 40A2.3)

The associated traditional enforcement item is tracked as item 2011-004-02.

Inspection Report# : [2011004](#) (pdf)

**G**

**Significance:** Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **DESIGN OF AUXILIARY FEEDWATER SYSTEM INCLUDED VOIDS IN SAFETY RELATED ALTERNATE SUCTION FLOWPATHS**

The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR 50, Appendix B, Criterion III, "Design Control," when licensee personnel failed to properly analyze the configuration of the Essential Service Water (SX) connections to the AF pumps. Specifically, a section of the piping was intentionally maintained empty (voided), but was not previously analyzed. This condition existed since initial plant construction. The issue was entered into the licensee's corrective action program as IR 1172938.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of Design Control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the unverified configuration might have rendered each of the AF pumps inoperable. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase - 1 Initial Screening and Characterization of Findings," Table 4a, for the Mitigating Systems Cornerstone. Specifically, the inspectors answered "Yes" to Question 1 of the Mitigating Systems Cornerstone column of the Phase 1 worksheet because the inspectors concluded that this finding was confirmed not to result in a loss of operability. This conclusion was reached after reviewing tests performed by the licensee. The tests demonstrated there was reasonable assurance that the AF system would perform its safety function in the installed configuration. Additionally, the licensee filled the voided sections of pipe, restoring compliance with the licensed design basis. The inspectors did not identify a cross-cutting aspect associated with this finding because it was not indicative of current licensee performance. (Section 40A5)

Inspection Report# : [2011004](#) (pdf)

**G**

**Significance:** Sep 02, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **UNTIMELY CORRECTIVE ACTION FOR PREVIOUSLY IDENTIFIED NON-CITED VIOLATIONS (SECTION 40a2.1.B.3.I)**

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," when licensee personnel failed to implement timely corrective actions to address two previously issued NCVs. The two NCVs were related to the lack of design analysis documentation associated with the Recycle Holdup Tank (RHUT); and tornado missile and seismic protection for the Diesel Oil Storage Tank (DOST) vent lines. Specifically, the licensee had not completed required design analyses for these issues at the conclusion of this inspection, although the violation associated with the RHUT was initially identified by NRC inspectors in June 2007 and the violation associated with the DOST vent lines was initially identified by NRC inspectors in February 2009. The licensee entered this issue into their CAP as IR 1269928 and planned to complete the required analyses by April 2012.

This finding was of more than minor significance because the issue was associated with the Mitigating Systems Cornerstone attribute of Equipment Performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Phase I Initial Screening and Characterization of Findings," Table 4a for the Mitigating Systems Cornerstone and answered "No" to all the Mitigating Systems Cornerstone questions. Specifically, the issue did not result in the actual loss of the operability or functionality of a safety system. Therefore, the finding screened as having very low safety significance (Green). This finding had a cross-cutting aspect in the Resources component of the Human Performance cross-cutting area (H.2(a)) because the licensee failed to maintain long-term plant safety through minimization of long-standing equipment issues. (Section 40A2.1.b.3.i)

Inspection Report# : [2011008](#) (pdf)

**G**

**Significance:** Sep 02, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

## **FAILURE TO INITIATE ISSUE REPORTS**

The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when licensee personnel failed to initiate IRs during the review of OPEX in accordance with licensee procedures to ensure that immediate actions, operability determinations, and reportability concerns were addressed by shift management within 24 hours. The licensee entered this issue into the CAP as IR 1257548 and completed the required shift management review.

The finding was of more than minor significance because, if left uncorrected, the issue would have the potential to lead to a more significant safety concern. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 4, "Phase I Initial Screening and Characterization of Findings," Table 4a for the Mitigating Systems Cornerstone and answered "No" to all the Mitigating Systems Cornerstone questions. Specifically, the issue did not result in the actual loss of the operability or functionality of a safety system. Therefore, the finding screened as having very low safety significance (Green). This finding had a cross-cutting aspect in the Operating Experience (OPEX) component of the Problem Identification and Resolution (PI&R) cross-cutting area (P.2(a)) because the licensee's procedures and guidance for OPEX did not ensure the systematic collection, evaluation, and communication to affected internal stakeholders, in a timely manner, of relevant internal and external OPEX. (Section 4OA2.2.c)

Inspection Report# : [2011008](#) (*pdf*)

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## **Barrier Integrity**

**Significance:**  Jun 15, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Provide Means to Detect Leak in Emergency Core Cooling Flow Path**

The inspectors identified a finding of very low safety significance and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to provide a means to detect and isolate a leak in the emergency core cooling flow path within 30 minutes, which was contrary to the Updated Final Safety Analysis Report. Specifically, the licensee failed to provide a means to detect and isolate a leak within 30 minutes in that neither sump alarms nor radiation monitors were provided for the safety injection pump rooms. The licensee entered the issue into their corrective action program and planned to evaluate options for modifications to address detection of emergency core cooling system leakage.

The performance deficiency was determined to be more than minor because it was associated with the Barrier Integrity cornerstone attribute of Design Control and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the failure to provide a means to detect and isolate a leak in the emergency core cooling flow path within 30 minutes could result in a delayed isolation of such a leak after an accident and result in a greater radionuclide release to the auxiliary building and the environment. The finding screened as very low safety significance (Green) because the finding did not represent an actual open pathway in the physical integrity of reactor containment. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2012007](#) (*pdf*)

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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

Last modified : September 12, 2012