

# Perry 1

## 2Q/2013 Plant Inspection Findings

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### Initiating Events

**Significance:**  Jun 28, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Implement a Procedure Appropriate to the Circumstances Leads to Reactor Overfeed Event**

A finding of very low safety significance and associated non-cited violation of

10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self revealed when the licensee failed to perform a procedure that was appropriate to the circumstances. Specifically, on May 12, 2013, work instruction PTI N27-P0012, Revision 5, was performed when the condition of the plant, i.e., the specific configuration of the feedwater system and the relatively low reactor pressure, was incapable of supporting the test and resulted in a reactor overfill event. The issue was entered into the corrective action program as condition report 2013-07473. The licensee performed an apparent cause evaluation to identify the most likely causal factors, citing the inadequacy of the procedure and the lack of proper planning as contributing causes.

The inspectors reviewed Inspection Manual Chapter (MC) 0612, Appendix B, "Issue Screening," and determined that the issue was more than minor because it was associated with the Initiating Events Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that the finding was of very low safety significance (Green) in accordance with IMC 0609, Appendix A, "Significance Determination Process." This finding has a cross cutting aspect in the area of human performance, work control, for the licensee's failure to plan work activities such that they could be performed while the plant was in an appropriate operational condition. Specifically, the licensee rescheduled the activity without performing an adequate impact review of the different plant conditions on the activity.

Inspection Report# : [2013009](#) (*pdf*)

**Significance:**  May 03, 2013

Identified By: Self-Revealing

Item Type: FIN Finding

#### **FAILURE TO PERFORM VENDOR RECOMMENDED PREVENTIVE MAINTENANCE ON THE BALANDE-OF-PLANT STATIC TRANSFER SWITCH**

A self-revealed finding of very low safety significance was identified for the licensee's failure to implement recommended preventive maintenance on a balance-of-plant (BOP) inverter and static transfer switch. Specifically, the licensee failed to implement vendor-recommended preventive maintenance requirements to replace circuit cards in both a BOP inverter and an associated static transfer switch every twelve and ten years, respectively. No violation of NRC regulatory requirements was identified because the performance deficiency involved nonsafety-related equipment. The licensee entered this issue into the corrective action program as Condition Report 2013-00954.

The inspectors determined that the failure to perform preventive maintenance on the failed BOP inverter and static transfer switch in accordance with vendor recommendations was a performance deficiency. The performance deficiency was evaluated using Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Screening," dated

September 7, 2012, and was determined to be more than minor, and thus a finding, because it was associated with the equipment performance attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The finding was evaluated using IMC 0609, dated June 2, 2011, and IMC 0609, Attachment 0609.04, dated June 19, 2012, and IMC 0609, Appendix A, Exhibit 1 – Initiating Events Screening Questions, dated June 19, 2012. In answering “no” to “B. Transient Initiators, ‘Did the finding cause a reactor trip AND the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition?’,” the inspectors determined that the finding was of very low safety significance (Green). The finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component in that the licensee failed to thoroughly evaluate problems such that the resolution addressed the causes. Specifically, the licensee had previously identified the reliability of the BOP inverter and static transfer switch as the cause for previous feedwater-related events but failed to implement recommended corrective actions to prevent future events (P.1(c)).

Inspection Report# : [2013002](#) (*pdf*)

## Mitigating Systems

**Significance:**  May 03, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **INADEQUATE PROCEDURE RESULTED IN LOSS OF HIGH-PRESSURE CORE SPRAY FUNCTION**

A self-revealed finding of very low safety significance and associated non-cited violation of Technical Specification 5.4.1.a., “Procedures,” was identified for the licensee’s failure to establish and maintain a correct surveillance inspection procedure for high-pressure core spray (HPCS) emergency core cooling systems integrated testing. The surveillance procedure used for the HPCS, safety-related electrical bus, EH13, testing during refueling outage 14, directly resulted in an unplanned outage of the bus for nearly 4 hours. The licensee entered the issue into the corrective action program as Condition Report 2013-03863.

The inspectors determined that the failure to develop a correct surveillance procedure required by Technical Specification 5.4.1 a. was a performance deficiency and resulted in an unplanned loss of the EH13 safety-related electric bus and caused a loss of function for HPCS. The performance deficiency was determined to be more than minor, and thus a finding, using IMC 0612, Appendix B, “Issue Screening,” dated September 7, 2012, because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was evaluated for significance using IMC 0609, Attachment 0609.04, dated June 19, 2012, and IMC 0609, Appendix A, Exhibit 2 – Mitigating Systems Screening Questions, dated June 19, 2012. The inspectors answered “yes” to Question 2, “Does the finding represent a loss of system and/or function?” A detailed risk evaluation was conducted by the Region III Senior Reactor Analyst (SRA). The SRA performed an evaluation using the NRC’s Standardized Plant Analysis Risk model for Perry. The SRA assumed that EH13 was unavailable for 4 hours. The change in core damage frequency was estimated to be much less than 1E-6/yr, which represents a finding of very low safety significance (Green). The finding has a cross-cutting aspect in the area of human performance associated with the work control component, in that, the licensee failed to appropriately coordinate work activities by incorporating actions to address the impact of changes to the work scope or activities which could affect the plant. Specifically, the development of a new surveillance procedure did not correctly predict

the plant response for the safety-related system test lineup and resulted in an unplanned loss of the EH13 safety-related electric bus (H.3(b)).

Inspection Report# : [2013002](#) (pdf)

**Significance:** G May 03, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**VALVE MIS-POSITION CAUSES SDV LEVEL DETECTOR INOPERABILITY**

A self-revealed finding of very low safety significance and associated non-cited violation of Technical Specification 5.4.1.a., "Procedures," was identified for the licensee's failure to correctly implement a surveillance procedure for calibration of a scram discharge volume (SDV) level detector. Specifically, licensee technicians failed to open and lock open, with independent verification, the lower isolation valve to an SDV level detector. The licensee documented the issue in the corrective action program as Condition Report 2013-04452.

The inspectors determined that the failure to correctly complete the procedure and lock open the lower isolation valve was a performance deficiency which resulted in a locked in scram signal with a resulting inability to clear the signal and restore safety-related systems after the scram (to begin a refueling outage) for several days. The performance deficiency was evaluated under Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Screening," dated September 7, 2012, and determined to be more than minor, and thus a finding, because it was associated with the human performance attribute of the Mitigating Systems cornerstone and it 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 finding was evaluated for significance using IMC 0609, Attachment 0609.04, dated June 19, 2012, and IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012. By answering "no" to "C. Reactivity Control Systems," questions 1, 2, and 3, the inspectors determined this finding was of very low safety significance because the finding did not affect other diverse methods of reactor shutdown, it did not add positive reactivity, nor did it result in the mismanagement of reactivity by an operator. The finding has a cross-cutting aspect in the area of human performance associated with the work practices component, in that the licensee communicates human error prevention techniques, that techniques are used commensurate with the risk of the assigned task, and personnel do not proceed in the face of uncertainty or unexpected circumstances. Specifically, the independent verifier found the valve in an unexpected condition with a locking device already installed, did not stop the process and question the valve position, but proceeded in the face of uncertainty (H.4(a))

Inspection Report# : [2013002](#) (pdf)

**Significance:** G May 03, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**FAILURE TO FOLLOW PROCEDURES FOR CONDUCTING A STANDBY LIQUID CONTROL SYSTEM SURVEILLANCE**

A self-revealed finding of very low safety significance and associated non cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified when the licensee failed to correctly implement procedures for testing safety related equipment. Specifically, the licensee failed to correctly implement prerequisite steps in a surveillance instruction, causing the standby liquid control (SLC) pump 'A' plunger pot drain valves to be left open, contrary to procedure. The licensee entered the finding into the corrective action program as Condition Report 2013-00114 and took immediate action to close the valves when leakage was discovered from the drain valve tailpipes.

The inspectors determined that the failure to correctly complete the prerequisite steps in surveillance instruction

(SVI)-C41-T2001-A was a performance deficiency which resulted in a water spill in containment, an associated lockup of the rod control and information system (RCIS), and required the licensee to enter two off-normal instructions (ONIs). The performance deficiency was determined to be more than minor, and thus a finding, using Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," dated August 11, 2009, because it is similar to Example 4.b and resulted in an unexpected, "Inhibit Rod Motion RCIS OOS," alarm and caused the operating crew to enter ONI-C11-1, "Inability to Move Control Rods." The finding was evaluated for significance using IMC 0609, Attachment 0609.04, dated June 19, 2012, and IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012. In answering "no" to "C. Reactivity Control Systems," questions 1, 2, and 3, the inspectors determined that the finding was of very low safety significance because the finding did not affect a reactor protection system trip signal, did not add positive reactivity, nor did it result in the mismanagement of reactivity by an operator. The finding has a cross-cutting aspect in the area of human performance associated with the work practices component, in that licensee personnel failed to use human error prevention techniques, such as holding a pre-job briefing, self and peer checking, and proper documentation of activities. Specifically, the operation to position the plunger pot drain valves on the 'A' and 'B' SLC pumps was not coordinated by the field supervisor in accordance with the SVI and operations personnel proceeded in the face of uncertainty or unexpected circumstances (H.4(a)).

Inspection Report# : [2013002](#) (*pdf*)

**Significance:**  Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**INAPPROPRIATE PROCEDURES FOR RESTORING LPCI MODE OF RHR FOLLOWING A LOCA AT MODE 3**

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to establish appropriate procedures capable of restoring low pressure coolant injection (LPCI) mode of residual heat removal (RHR), while in the shutdown cooling (SDC) mode, following a loss-of-coolant accident (LOCA) in Mode 3. Specifically, the licensee failed to prescribe procedures which ensured: (1) LPCI could be restored using only safety-related/seismic structures, systems and components; (2) no unanalyzed water hammer event occurred; (3) the equipment used for venting the system were appropriate; and (4) operator safety was maintained. This finding was entered into the licensee's corrective action program and the licensee instituted compensatory actions to declare RHR trains INOPERABLE while aligned to SDC. Additionally, procedures affected are prohibited from use while the plant is in Mode 3.

The performance deficiency was determined to be more than minor because, if left uncorrected it could have the potential to lead to a more significant safety concern. Specifically, the inspectors had concerns that procedures, as currently written, would have been unsuccessful in restoring LPCI. The finding screened as having a very low safety significance based on a Phase II Significance Determination Process evaluation. The result was a delta core damage frequency less than 1.0E-6/year. The inspectors determined this finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience, because the licensee did not implement operating experience through changes to the station's process, procedures, and equipment. Specifically, the licensee's evaluation of Information Notice 2010-11 incorrectly concluded sufficient barriers were in place to prevent the occurrence of steam voiding in the RHR system (P.2(b)).

Inspection Report# : [2012005](#) (*pdf*)

**Significance:**  Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

## DEFICIENCIES WITH PERIODIC VENTING PROCEDURES AND VOID QUANTIFICATION

The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," for the failure to ensure adequate test instrumentation was available and used during the performance of periodic venting. This finding was entered into the licensee's corrective action program and the licensee will revise the affected procedures to require the use of a timepiece.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of "Procedure Quality: Maintenance and Testing Procedures." Specifically, by not using adequate test instrumentation to measure the time gas was vented, the licensee introduced further uncertainty to an already inaccurate method. The finding screened as having very low safety significance because the finding involved a design or qualification deficiency that did not result in a loss of operability. Specifically, review of the licensee's corrective action program documents for resolution of Generic Letter 2008 01 determined that voids had been identified following system restoration (initial fill and vent) while the system was inoperable, and voids identified when the system was online had been significantly below the calculated acceptance criteria. This finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience, because the licensee did not thoroughly evaluate relevant external operating experience. Specifically, the licensee's evaluation of Nuclear Energy Institute 09-10, Revision 0, failed to identify the importance of having adequate venting time information when quantifying vented voids (P.2(a)).

Inspection Report# : [2012005](#) (pdf)

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## Barrier Integrity

**Significance:**  Jun 28, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### Failure to Follow Procedural Requirements for RWCU System Fill and Vent

A finding of very low safety significance and associated non-cited violation of Technical Specification 5.4, "Procedures," was self revealed when the licensee failed to adhere to procedural requirements during the filling and venting of the reactor water cleanup (RWCU) system. Specifically, on April 26, 2013, valves 1G33-F008A and F556A were left in the open position, contrary to the requirements of step 7.16.9 of procedure SOI-G33, revision 36, and resulted in the RWCU system being aligned to the condensate transfer and storage system. This valve misposition event also resulted in the TS 3.6.1.3 inoperability of the containment isolation valve 1P11F0545. Upon discovery of the condition, the licensee promptly corrected the error and the entered the condition into its corrective action program as condition report 2013 07483, and performed an apparent cause evaluation.

The inspectors reviewed Inspection Manual Chapter (MC) 0612, Appendix B, "Issue Screening," and determined that the issue was more than minor because it was associated with the Barrier Integrity Cornerstone attribute of configuration control and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. The inspectors determined that the finding was of very low safety significance (Green) in accordance with IMC 0609, Appendix A, "Significance Determination Process." This finding has a cross cutting aspect in the area of human performance, work practices, for the licensee's failure to successfully incorporate human error prevention techniques, such as self and peer checks.

Inspection Report# : [2013009](#) (pdf)

**Significance:** G Dec 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**INADEQUATE FUEL HANDLING BUILDING CRANE MAINTENANCE CHALLENGES SINGLE-FAILURE-PROOF COMPLIANCE**

A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self revealed for the failure to perform adequate maintenance on the single-failure-proof fuel handling building (FHB) crane used to handle dry storage casks containing spent nuclear fuel. The licensee corrected the issue prior to conducting lifts containing spent nuclear fuel and entered it into their corrective action program (Condition Reports 2012-13234, 2012-13315, and 2012-12933).

The inspectors determined the performance deficiency was more than minor in that it affected the Human Performance attribute (maintenance performance) of the Barrier Integrity cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radioactive releases caused by accidents or events. Additionally, if left uncorrected, a malfunction of the FHB crane could lead to a more significant safety concern. Based on answering "No" to all the screening questions in IMC 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions," the finding was determined to be of very low safety-significance (Green). This finding had a cross-cutting aspect in the area of Human Performance, Resources, because the licensee failed to have complete, accurate, and up-to-date procedures that ensured personnel, equipment, procedures, and other resources were available and adequate to assure nuclear safety. Specifically, the licensee failed to have maintenance procedures that ensured the FHB crane would be capable of performing its single failure proof design functions that assure nuclear safety (H.2 (c)).

Inspection Report# : [2012005](#) (*pdf*)

## Emergency Preparedness

**Significance:** G Dec 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO CLASSIFY AND UNUSUAL EVENT**

The inspectors identified a finding of very low safety significance with an associated non-cited violation of 10 CFR 50.54(q)(2) for the failure to follow the Perry Nuclear Power Plant Emergency Plan that uses a standard emergency classification and action level scheme. Specifically, on June 7, 2012, Perry personnel failed to classify an Unusual Event for an unexpected increase in plant radiation levels when health physics surveys indicated an increase by a factor of 1000 times over normally expected area radiation levels. On June 14, 2012, the licensee initiated CR 2012-09729 to determine why an Unusual Event was not classified for the June 3, 2012, resin spill, and why there was a failure to classify the unexpected increase in plant radiation levels identified in surveys of the 574' elevation of the radwaste building on June 7. On November 29, 2012, the licensee initiated CR 2012-18622 to identify and investigate reasons for the Unusual Event requirements.

The failure to implement the emergency plan and classify an Unusual Event was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it affected the Emergency Response Organization performance attribute of the Emergency Preparedness cornerstone and adversely affected the cornerstone objective to ensure the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Using Inspection Manual Chapter 0609, Appendix B,

"Emergency Preparedness Significance Determination Process," Attachment 1, the finding was determined to have very low safety-significance (Green) because the actual event implementation problem was associated with an Unusual Event. This finding had a cross-cutting in the area of Problem Identification and Resolution, Corrective Action Program, for evaluation and extent of condition (P.1c)). Specifically, Perry personnel failed to properly evaluate and classify an Unusual Event for the June 3, 2012, resin spill conditions in CR 2012-09447, dated June 7, 2012, and CR 2012-09729, dated June 14, 2012.

Inspection Report# : [2012005](#) (*pdf*)

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## Occupational Radiation Safety

**Significance:**  Jun 28, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Implement the Operational and Radiological Controls Necessary to Prevent Plant Manipulations from Adversely Impacting Dose Rates or Airborne Radioactivity Levels**

The inspectors identified a finding of very low safety significance and associated non-cited violation of Technical Specification (TS) 5.4, "Procedures." Specifically,

TS 5.4 "Procedures", Step 5.4.1 states, in part, that the licensee shall establish, implement, and maintain applicable procedures recommended in Regulatory Guide

(RG) 1.33, Revision 2, Appendix A. Section 7 of Appendix A of RG 1.33 specifies radiation protection procedures for control of radioactivity for limiting personnel exposures. Licensee procedure NOP-OP-4107, "Radiation Work Permit," requires that radiological controls identify "critical steps or critical instructions for positive radiological control of the work to ensure no change on unexpected change in radiological conditions, and prevent unplanned exposure." Contrary to this, on six occasions during the spring 2013 refueling outage, the licensee failed to implement operational and radiological controls necessary to prevent plant manipulations from adversely impacting ambient radiological dose rates or airborne radioactivity levels in the plant when workers were in the areas. The licensee documented this issue in its corrective action program as condition report 2013-09891. As an immediate corrective action, the licensee instituted the appropriate operational and radiological controls to ensure personnel safety.

The inspectors reviewed Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Screening" and determined that the issue was more than minor because, if left uncorrected, the performance deficiency could have led to a more significant safety concern. Specifically, not implementing the operational and radiological controls necessary to prevent plant manipulations from adversely impacting ambient radiological conditions in the plant could result in unnecessary and unplanned radiation exposures. The inspectors determined that the finding was of very low safety significance (Green) in accordance with IMC 0609, Appendix C, "Occupation Radiation Safety Significance Determination Process." This finding has a cross-cutting aspect in the area of human performance, work-control, because the licensee did not appropriately plan work activities when developing the work packages and authorizing the work.

Inspection Report# : [2013009](#) (*pdf*)

**Significance:**  Jun 28, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Lock or Continuously Guard Doors to Prevent Unauthorized Entry to an LHRA**

A finding of very low safety significance and an associated non-cited violation

of Technical Specification 5.7, "High Radiation Area," was self-revealed when the access point to the locked high radiation area of the auxiliary steam tunnel on the 620'-elevation of the turbine building was left unattended on May 1, 2013, for about 8 minutes. This issue was entered into the licensee's corrective action program as condition report 2013-06892. As immediate corrective actions, access to the area was guarded and appropriate controls were instituted.

The inspectors reviewed Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," and determined that the issue was more than minor because it was similar to Example 6(g). The inspectors also determined that the finding was of very low safety significance (Green) in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process." This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported.

Inspection Report# : [2013009](#) (pdf)

**Significance:**  Jun 28, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Post and Barricade a HRA in the Under-Condenser Area Turbine Building Cubicles 13 and 14**

The inspectors identified a finding of very low safety significance and an associated non-cited violation of Technical Specification 5.7. "High Radiation Area," when the inspectors identified an unposted, unbarricaded high radiation area under the condenser in turbine building cubicles 13 and 14 that was accessible to personnel by scaffold. This issue was entered into the licensee's corrective action program as condition report 2013-06139. As an immediate corrective action, the scaffold was removed and appropriate controls were instituted.

The inspectors reviewed Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," and determined that the issue was more than minor because it was similar to Example 6(g). The inspectors also determined that the finding was of very low safety significance (Green) in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process." This finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee did not thoroughly evaluate and address this issue when initially identified by the NRC in 2011 or during the licensee's extent of condition evaluations.

Inspection Report# : [2013009](#) (pdf)

**Significance:**  Dec 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**FAILURE TO APPROPRIATELY CONTROL ACCESS TO A LOCKED HIGH RADIATION AREA**

A finding of very low safety significance and associated non-cited violation of 10 CFR 20.1501 was self-revealed for the failure of the licensee to make surveys to ensure compliance with 10 CFR 20.1601 and Technical Specification 5.7.2 from June 3 through June 7, 2012. Specifically, the licensee failed to evaluate the radiological conditions and potential radiological hazards associated with the spill of radioactive resins on the 574' elevation of the radioactive waste processing building that resulted in the failure to properly barricade and conspicuously post the area as required by 10 CFR 20.1601 and Technical Specification 5.7.2. The area was found to be accessible to personnel with radiation levels such that a major portion of the whole body could receive in 1 hour a dose greater than or equal to 1000 millirem. Corrective actions included performing complete radiological surveys of the area, posting and controlling the area as required by licensee Technical Specifications. These actions were completed on June 7, 2012.

The inspectors determined that this finding was more than minor because it was associated with the program and process attribute of the Occupational Radiation Safety cornerstone and adversely affected the associated cornerstone objective of protecting worker health and safety from exposure to radiation. Specifically, not barricading and conspicuously posting high radiation areas may result in unnecessary and unplanned radiation exposures to workers. The inspectors reviewed the finding in accordance with Inspection Manual Chapter 0609, Appendix C, Occupational Radiation Safety Significance Determination Process, and determined that the finding was of very low safety significance because the finding did not involve as-low-as-is-reasonably-achievable (ALARA) planning or work controls, there was no overexposure or substantial potential for an overexposure, nor was the licensee's ability to assess worker dose compromised. The inspectors concluded that the most significant contributor to the finding was in the cross-cutting area of Human Performance with the component of decision making (H.1.(b)).

Inspection Report# : [2012005](#) (*pdf*)

**Significance:** **W** Sep 14, 2012

Identified By: NRC

Item Type: FIN Finding

**Parallel White PI Finding (EA 2012-228)**

The inspectors identified a White parallel PI inspection finding for the failure to provide assurance that the corrective actions for performance issues associated with the Occupational Exposure Control Effectiveness PI were sufficient to address the root and contributing causes and to prevent recurrence. This finding has been entered into the licensee's Corrective Action Program (CAP) as Condition Report (CR)-2012-18695.

In accordance with IP 95002 and IMC 0305, "Operating Reactor Assessment Program," the parallel PI inspection finding is assigned the same safety significance as the initiating PI. Because the initiating PI had a low to moderate safety significance (White), this parallel inspection finding has been assigned a low to moderate safety significance (White). This finding was not assessed for cross-cutting aspects.

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

Inspection Report# : [2013009](#) (*pdf*)

**Significance:** **G** Sep 14, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Implement Existing Plant Procedures)**

The inspectors identified a finding of very low safety significance and multiple examples of an associated NCV for failure to comply with Technical Specification (TS) 5.4.1. Specifically, the inspectors identified that the licensee failed to implement multiple procedural requirements associated with a spill of radioactive material in the Radioactive Waste Building. The failure to implement these procedural requirements occurred across multiple organizations (Radiation Protection, Work Control, and Operations). The licensee entered this issue into their CAP as CR-2012-09447.

The performance deficiency was determined to be more than minor because it could reasonably be viewed as a precursor to a significant event (lack of proper protection of workers from potential exposures), was related to the Programs and Process attribute of the Occupational Radiation Safety Cornerstone, and adversely affected the cornerstone objective to ensure the adequate protection of worker health and safety from exposure to radiation from radioactive material during routine reactor operation. Therefore, the performance deficiency was determined to be a finding or more than minor safety significance. The finding was not subject to traditional enforcement because it was not associated with a violation that impacted the regulatory process and did not contribute to actual safety consequences. The finding was assessed using IMC 0609, Appendix C, "Occupational Radiation Safety SDP," and

was determined to be of very low safety significance (Green) because it was not related to As-Low-As-Is-Reasonably-Achievable (ALARA), did not result in an overexposure or a substantial potential for overexposure, and did not compromise the licensee's ability to assess dose. This finding was associated with a cross-cutting aspect in the decision-making component of the human performance cross-cutting area. Specifically, the licensee failed to use conservative assumptions in their decisions affecting response to a radiological spill, which resulted in failure to adequately control the area for several days

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

**Significance:**  Sep 14, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Appropriately Control Access to a Locked High Radiation Area**

The inspectors identified a finding of very low safety significance and an associated NCV of TS 5.7.2 for the failure to control and establish barriers that would prevent unauthorized entry to an area that was accessible to personnel with radiation levels, such that a major portion of the whole body could receive in 1 hour, a dose greater than or equal to 1000 mRem. Specifically, the inspectors determined that the barriers used to control access to an identified Locked High Radiation Area (LHRA) around the work platform erected to support dry fuel storage cask loading and transport, did not provide reasonable assurance that the area was secure against unauthorized access and could not be circumvented. The licensee entered this issue into their CAP as CR-2012-14884. The licensee also took immediate corrective actions, which included posting an additional access control guard in the area, documenting Radiation Protection (RP) Manager standing orders for control of the area, controlling keys to operate the person-lift by the RP staff, and providing additional physical barriers to the lower areas of the scaffolding to prevent use of natural ladders of the scaffolding.

The performance deficiency was determined to be more than minor based on Example 6.g of IMC 0612, Appendix E, "Examples of Minor Issues," because LHRA conditions were actually present. As a result, the inspectors determined that the performance deficiency was a finding of more than minor safety significance. The finding was not subject to traditional enforcement because it was not associated with a violation that impacted the regulatory process and did not contribute to actual safety consequences. The finding was assessed using IMC 0609, Appendix C, "Occupational Radiation Safety SDP," and was determined to be of very low safety significance (Green) because it was not related to ALARA, did not result in an overexposure or a substantial potential for overexposure, nor was the ability to assess dose compromised. This finding was associated with a cross-cutting aspect in the operating experience component of the problem identification and resolution cross cutting area. Specifically, the licensee failed to implement and institutionalize operating experience through changes to station processes, procedures, equipment and training programs.

Inspection Report# : [2012009](#) (*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 : September 03, 2013