

Perry 1

1Q/2011 Plant Inspection Findings

Initiating Events

Significance:  Dec 31, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Follow Procedures Results in Unplanned Half Scram

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 a failure to follow plant procedures. Specifically, the licensee failed to perform a "burn-in" on a voltage regulator card, as required by Nuclear Operating Business Practice (NOBP)-ER-3399, Fleet Circuit Card and Power Supply Burn-in Guide, which failed prematurely and resulted in an unexpected half scram. The licensee entered the issue into their corrective action program.

The performance deficiency was determined to be more than minor because the finding impacts the Equipment Performance attribute of the Initiating Events Cornerstone and adversely affects the cornerstone objective to limit the likelihood of those events that could upset plant stability and challenge critical safety functions during power operations. The finding was of very low safety significance because the Phase 3 analysis resulted in a minimal change in core damage frequency. This finding was associated with a cross-cutting aspect in the Resources component of the Human Performance cross-cutting area because the licensee did not use up-to-date work packages to assure nuclear safety. Specifically, the licensee did not update the voltage regulator card replacement work plan to include the new circuit card burn-in procedure requirement. (H.2(c))

Inspection Report# : [2010005](#) (*pdf*)

Significance:  Nov 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Unexpected Recirculation Flow Control Valve Runback Due to Inadequate Work Plan

: 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 licensee's failure to have an adequate work plan for replacing voltage regulator cards associated with Average Power Range Monitor (APRM) 'A'. Specifically, the work plan for APRM 'A' did not provide proper guidance to the technicians or operating crew resulting in an unexpected recirculation flow control valve (FCV) runback and subsequent required operator actions. The licensee entered the issue into their corrective action program as condition report (CR) 10-85239. As part of the corrective actions, the licensee plans to place warning placards on the outside of the APRM cabinet doors providing the proper instructions to personnel working in the cabinets.

The finding was determined to be more than minor because the finding was similar to IMC 0612, Appendix E, Example 4.b, and resulted in operator intervention to maintain reactor power stable. In addition, the performance deficiency impacted the Initiating Events Cornerstone attribute of procedures and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability. 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 Initiating Events cornerstone. While the finding increased the likelihood of a reactor trip, it did not increase the likelihood that mitigation equipment would not be available, and therefore, the inspectors determined the finding to be of very low safety significance. The finding is associated with a cross cutting aspect in the operating experience component of the Problem Identification & Resolution cross-cutting area because the licensee did not implement internal operating experience (OE) into station processes and procedures. Specifically, licensee personnel did not adequately research and identify previous plant experience regarding the impact of de-energizing the power supply to the control circuitry for APRM 'A' on other related systems contributing directly to an unplanned power transient on the reactor (P.2(b)).

Inspection Report# : [2010007](#) (*pdf*)

Mitigating Systems

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Unacceptable Preconditioning of HPCS Suction and Pump Minimum Flow Valves Prior to ASME Inservice Testing

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 unacceptable preconditioning of the high-pressure core spray (HPCS) suction valves and the HPCS pump minimum flow valve prior to quarterly inservice testing (IST) of the same valves. The inspectors determined that a maintenance delay, which caused a shift in the scheduled performance of the quarterly pump and valve testing of the HPCS system, produced a schedule conflict that resulted in cycling of the HPCS pump suction valves less than 9 hours prior to scheduled quarterly IST of the same valves. The schedule change also caused the HPCS pump minimum flow valve to be cycled less than 26 hours prior to the eventual IST of that valve. The licensee entered the issue into their corrective action program.

The performance deficiency was determined to be more than minor because, if left uncorrected, it could lead to a more significant safety concern. The finding was of very low safety significance because it was not a design/qualification deficiency, did not represent a loss of system safety function, did not result in a loss of function of a single train for greater than its Technical Specification-allowable outage time, did not result in a loss of function of non safety related risk-significant equipment, and was not risk significant due to external events. This finding was associated with a cross-cutting aspect in the Work Control component of the Human Performance cross-cutting area because the licensee did not properly evaluate work week schedule changes with regard to the impact on other scheduled work. Specifically, the licensee did not reschedule work in a manner which prevented preconditioning of the HPCS suction and pump minimum flow valves. (H.3(b))

Inspection Report# : [2010005](#) (*pdf*)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Unacceptable Preconditioning of HPCS Valve Prior to ASME Inservice Testing

The inspectors identified a finding of very low safety significance and associated non-cited violation of Technical Specification 5.4.1.a, for failure to establish an adequate procedure to test the high-pressure core spray (HPCS) test return valve to the suppression pool. The inspectors determined that the licensee performed a surveillance that cycled the valve prior to performing stroke time testing, which constituted unacceptable preconditioning. The licensee entered the issue into their corrective action program.

The performance deficiency was determined to be more than minor because, if left uncorrected, it could lead to a more significant safety concern. The finding was of very low safety significance because it was not a design/qualification deficiency, did not represent a loss of system safety function, did not result in a loss of function of a single train for greater than its Technical Specification-allowable outage time, did not result in a loss of function of non safety-related risk-significant equipment and was not risk significant due to external events. This finding was associated with a cross-cutting aspect in the Operating Experience component of the Problem Identification and Resolution cross-cutting area because the licensee did not implement industry operating experience into station processes and procedures. Specifically, the licensee did not update or revise the surveillance test to prevent unacceptable preconditioning of the valve. (P.2(b))

Inspection Report# : [2010005](#) (*pdf*)

Significance:  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Evaluate System Functionality of Control Room Breathing Air

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 evaluate and maintain functionality assessments for the main control room emergency breathing air system, which is described in the Updated Safety Analysis Report (USAR). The inspectors determined that the leakage rate that existed on the control room breathing air system exceeded the allowed leakage rate for the system to maintain functionality from July through September 2010, as evaluated by a licensee engineering evaluation completed on December 16, 2010. The licensee entered the issue into their corrective action program.

The performance deficiency was determined to be more than minor because it is similar to example 4.d of IMC 0612, Appendix E, Examples of Minor Issues, and would significantly impact the operators' ability to shutdown the reactor from the main control room using the breathing air system. In addition, the performance deficiency impacts the Equipment Performance attribute of the Mitigating Systems Cornerstone and adversely affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was of very low safety significance because it was not a design/qualification deficiency, did not represent a loss of system safety function, did not result in a loss of function of a single train for greater than its Technical Specification allowable outage time, did not result in a loss of function of non safety related risk-significant equipment and was not risk-significant due to external events. This finding was associated with a cross-cutting aspect in the Resources component of the Human Performance cross-cutting area because the licensee did not maintain a system described in the USAR in a condition that would allow it to meet its described function. Specifically, operators would not be able to remain in the main control room using breathing air for the required time prescribed by the system description in the USAR due to excessive leakage from a system relief valve. (H.2(d))

Inspection Report# : [2010005](#) (*pdf*)

Significance:  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

UNACCEPTABLE PRECONDITION OF RHR VALVE PRIOR TO ASME IN-SERVICE TESTING

The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR 50, Appendix B, Criterion XI, Test Control, for the unacceptable preconditioning of the 'A' residual heat removal (RHR) pump minimum flow valve prior to quarterly in-service testing. Specifically, the licensee performed a surveillance that cycled the valve prior to performing stroke time testing, and had not previously performed an evaluation assessing the sequence for preconditioning. The licensee entered the issue into their corrective action program.

The inspectors determined that unacceptably preconditioning the RHR minimum flow valve was a performance deficiency that affected the Mitigating Systems Cornerstone because it can mask the true as-found condition of a component designed to mitigate accidents. The performance deficiency was determined to be more than minor because, if left uncorrected, it could lead to a more significant safety concern. The finding was of very low safety significance because it was not a design/qualification deficiency, did not represent a loss of system safety function, did not result in a loss of function of a single train for greater than its Technical Specification (TS)-allowable outage time, did not result in a loss of function of nonsafety-related risk-significant equipment and was not risk significant due to external events. This finding has a cross-cutting aspect in the work control planning component of the Human Performance area (per IMC 0310 H.3(a)), because the licensee did not appropriately plan work activities for plant structures, systems, and components. Specifically, the licensee did not schedule the surveillance tests in the proper sequence to prevent unacceptable preconditioning of the valve.

Inspection Report# : [2010004](#) (*pdf*)

Significance:  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO COMPLY WITH TECHNICAL SPECIFICATION LCOS WHEN REACTOR VESSEL LEVEL INSTRUMENTS WERE DECLARED INOPERABLE

The inspectors identified a finding of very low safety significance and associated NCV for a failure to comply with TS

3.0.2 by not entering TS Limiting Condition for Operation (LCO) 3.3.5.1 Condition A and TS LCO 3.3.6.1 Condition A when required. The inspectors determined that the licensee incorrectly utilized a TS Surveillance Requirement Note that allows a delay in entering the Conditions and Required Actions for the given TS LCO. As a result, the licensee failed to correctly enter the Conditions and Required Actions when reactor level instruments were declared inoperable to perform testing in support of planned maintenance. The licensee entered the issue associated with the failure to comply with TS into their corrective action program.

This performance deficiency was determined to be more than minor because it impacted 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 (i.e., core damage); and if left uncorrected it could lead to a more significant safety concern. This finding is of very low safety significance because it was not a design/qualification deficiency, did not represent a loss of system safety function, did not result in a loss of function of a single train for greater than its TS-allowable outage time, did not result in a loss of function of nonsafety-related risk-significant equipment and was not risk significant due to external events. This finding has a cross cutting aspect in the decision making component of Human Performance cross cutting area (per IMC 0310 H.1(b)), because the licensee did not use conservative assumptions to ensure the proposed action was safe. Specifically, the licensee incorrectly used the TS Surveillance Requirement Note to satisfy maintenance requirements.

Inspection Report# : [2010004](#) (pdf)

Significance:  Aug 03, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Effectively Manage, Prioritize and Disposition Numerous Operations Procedures Document Change Requests (DCRs) Notifications

The inspectors identified a finding of very low safety significance and associated NCV of Technical Specification 5.4.1.a for the licensee's failure to maintain written procedures covering "General Plant Operating Procedures," "Procedures for Startup, Operation and Shutdown of Safety-Related BWR Systems," and "Procedures for Combating Emergencies and Other Significant Events," as required by the Technical Specifications. Specifically, the licensee failed to effectively manage, prioritize and disposition numerous long-standing design change requests (DCRs). The DCRs documented operations procedure issues/discrepancies identified by plant operators during plant operation activities under normal, abnormal, emergency and shutdown conditions. The licensee entered this finding into their corrective action program (CR10 79187) and performed a cause analysis evaluation to identify the causes and determine potential impact on plant operations.

The finding was more than minor in accordance with IMC 0612, Appendix B because the finding was associated with the procedure quality attribute of the mitigating systems cornerstone and affected the cornerstone's 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 licensee's failure to maintain the operations procedures up to date could have complicated and prolonged operator response during plant operation activities under normal, abnormal, and emergency conditions. The finding was of very low safety significance based on a Phase 1 screening in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a.

This finding had a cross cutting aspect in the area of human performance, resources because the licensee did not provide complete, accurate, and up-to-date operations procedures to plant personnel. Specifically, the licensee failed to effectively manage, prioritize and disposition numerous long-standing DCRs. The DCRs documented procedure changes to be incorporated into plant procedures that were used during plant operation activities under normal, abnormal, emergency and shutdown conditions. [H.2(c)] (Section 1R17.1b.(1))

Inspection Report# : [2010006](#) (pdf)

Emergency Preparedness

Occupational Radiation Safety

Significance:  Mar 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Establish Radiological Conditions in a Locked HRA [i.e., the fuel pool cooling and cleanup (FPCC) Heat Exchanger Room] Prior to Allowing Personnel Access.

A finding of very low safety significance and an associated NCV of Technical Specifications (TS) 5.7.2 was self-revealed following the licensee's failure to adequately identify the radiological conditions in the fuel pool cooling and cleanup (FPCC) heat exchanger room prior to a pre-job brief for work in the room and prior to workers entering the room. Specifically, on November 19, 2010, operators involved in tag out activities for a valve encountered elevated dose rates when they entered an un surveyed area on the back side of the FPCC heat exchanger. At the time the FPCC room was controlled as a locked high radiation area (HRA). While entering the area one of the operators received an electronic dosimeter (ED) dose rate alarm of 1500 mRem/hr. Follow-up surveys determined that the highest dose rate in the area entered was 2000 mrem/hr. As part of the licensee's corrective actions, lessons learned were shared with the radiation protection (RP) staff to address survey and briefing inadequacies. Additional performance management actions were implemented by the station.

The inspectors determined that the licensee's failure to adequately identify the radiological conditions in the room prior to workers entering the work area was a performance deficiency. The inspectors determined that the finding was more than minor because the inspectors identified Example 6(h) of IMC 0612, Appendix E, as similar to the finding; the workers were not made aware of the radiological conditions before entry into the area on the back side of the FPCC heat exchanger. Additionally, the finding impacted the program and process attribute of the Occupational Radiation Safety Cornerstone by adversely affecting the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation in that workers' entry into areas, without knowledge of the radiological conditions, placed them at increased risk for unnecessary radiation exposure. The finding was determined to be of very low safety significance because the performance deficiency was not an as-low-as-reasonably-achievable (ALARA) planning issue, there was no overexposure, nor substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. The inspectors determined that the cause of this incident involved a cross-cutting component in the human performance area of work practices in that the work crew proceeded in the face of uncertainty when unexpected circumstances were encountered in the FPCC heat exchanger room. [H.4(a)]

Inspection Report# : [2011002](#) (*pdf*)

Significance:  Jun 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Adequately Establish the Radiological Conditions In A Locked High Radiation Area to Allow Workers to Be Properly Briefed Prior to Entry.

A finding of very low safety significance and an associated Non-Cited Violation (NCV) of Technical Specification 5.7.1 was self-revealed following worker entry into the fuel pool cooling and cleanup (FPCC) heat exchanger room. At the time, the FPCC heat exchanger room was being controlled as a locked high radiation area (HRA). The licensee failed to adequately determine radiological dose rates in the room to ensure workers were briefed accurately on the radiological conditions prior to entry. On March 12, 2010, workers involved in tag-out activities in the room, encountered greater than expected dose rates. After completion of a tag-out activity in the FPCC heat exchanger room, the licensee identified that the electronic dosimeter (ED) worn by one of the workers had a dose rate of 550 mrem/hour and had alarmed. The workers were briefed to expect dose rates no greater than 150 mrem/hour based on the radiation survey used to support the briefing. The radiological information conveyed to the workers through a

briefing by the radiation protection (RP) staff was inadequate because it was based on an incomplete survey. As part of the licensee's corrective actions, lessons learned were shared with the RP staff to address survey adequacy and for enhanced communications with workers during pre-job briefings.

The inspectors identified Example 6(h) of IMC 0612, Appendix E, as similar to the performance issue. The workers were not made aware of the radiological conditions before entry into the room. Therefore, as provided in Example 6 (h), the inspectors determined that the performance deficiency was more than minor. Additionally, the performance deficiency impacted the program and process attribute of the Occupational Radiation Safety Cornerstone and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation, in that, worker entry into areas without knowledge of the radiological conditions placed them at increased risk for unnecessary radiation exposure. The finding was determined to be of very low safety significance because the problem was not an as-low-as-reasonably-achievable (ALARA) planning issue, there was no overexposure, nor substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. The inspectors determined that the cause of this incident involved a cross cutting component in the human performance area for inadequate work control (H.3.(a)) in that, work activities were not adequately planned by incorporating job site radiological conditions. Specifically, the licensee job briefing did not utilize complete and accurate survey maps for the areas being entered into by the workers assigned to conduct tasks in the FPCC heat exchanger room. (Section 2RS1.2)

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

Significance:  Jun 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure To Work In High Radiation Areas Within The Bounds Of The Radiological Briefing Resulting In Entry Into Areas Without Knowledge Of The Radiological Conditions. (Section 2RS1.3)

A finding of very low safety significance and an associated NCV of Technical Specification 5.7.1 was self-revealed after workers entered into high radiation areas (HRAs) on March 28, 2010. On two occasions, workers entered HRAs without knowledge of the radiological (dose rate) conditions of the areas entered. As a result, the electronic dosimeters (EDs) worn by the workers alarmed on high dose rate. The involved individuals were authorized to work in specified locations within the HRAs and were informed of the radiological conditions by the radiation protection (RP) staff for those specific areas. However, the workers took actions inconsistent with the briefings because they moved to other locations without authorization from RP and without knowledge of the radiological conditions of the area they entered. The individuals were briefed to expect dose rates of approximately 100 mrem/hour but traversed into other locations within the HRA with dose rates three to six times greater than those briefed. As corrective actions, the licensee is developing means to improve its pre-job briefings and contemplating other approaches to ensure workers do not work beyond the scope of the pre-job brief.

The inspectors identified Example 6(h) of IMC 0612, Appendix E, as similar to the performance issue. In both instances the workers took unauthorized actions and entered into other HRAs unaware of the elevated radiological conditions in those areas. Therefore, as provided in Example 6(h), the inspectors determined that the performance deficiency was more than minor. Additionally, the performance deficiency impacted the program and process attribute of the Occupational Radiation Safety Cornerstone and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation, in that, worker entry into areas without knowledge of the radiological conditions placed them at increased risk for unnecessary radiation exposure. The finding was determined to be of very low safety significance because the problem was not an ALARA planning issue, there were no overexposures, nor substantial potential for overexposures, and the licensee's ability to assess dose was not compromised. The inspectors determined that the cause of the incidents each involved cross-cutting components in the human performance area for inadequate work practices (H.4.(b)). Specifically, personnel work practices did not support human performance because the licensee did not effectively communicate expectations regarding procedural compliance and personnel failed to follow procedures. (Section 2RS1.3)

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

Significance:  Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate ALARA Planning And Radiological Controls That Did Not Prevent Unplanned, Unintended Dose For Several Work Activities In Refuel Outage 12.

3The inspectors identified a finding of very low safety significance and an associated NCV of 10 CFR 20.1101.b for inadequate ALARA planning and radiological controls. The inspectors determined that as a result of these inadequacies, the licensee's ALARA program did not prevent unplanned, unintended dose for several work activities during refuel outage 12 (RFO-12). As a result, the licensee failed to achieve occupational radiation exposures that were ALARA. The issue was entered into the licensee's CAP as CR 09-59216, and corrective actions were implemented to address the outage planning and work execution issues.

The inspectors identified Example 6(i) of IMC 0612, Appendix E, as similar to the performance issue. Therefore, as provided in Example 6(i), the inspectors determined that the performance deficiency was more than minor. Additionally, the performance deficiency impacted the program and process attribute of the Occupational Radiation Safety Cornerstone and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation, in that, worker exposures were not maintained ALARA. The inspectors concluded that the finding did not result in overexposures, a substantial potential for overexposures, or a compromised ability to assess dose. The inspectors determined that the finding involved ALARA planning and work controls. Since the licensee's 3-year rolling collective dose average was less than 240 person-rem per unit, at the time the performance deficiency occurred, the inspectors determined that the SDP assessment for this finding was of very low safety significance. The inspectors also concluded that the finding was associated with a cross-cutting aspect in the area of human performance in the area of work controls (H.3.(a)), in that, the licensee did not appropriately plan work activities by incorporating radiological safety. (Section 2RS2.2)

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

Significance:  Jun 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure To Evaluate The Need For Radiological Engineering Measures To Control Contamination During Installation Of A Cover Over The Drywell Head.

4A finding of very low safety significance and an associated NCV of 10 CFR 20.1501 was self-revealed during an activity associated with the installation of a contamination control cover element (i.e., the parachute) over the drywell head. The inspectors concluded that the licensee failed to perform an evaluation to determine the need for process or other engineering controls as required by 10 CFR 20.1701 and 20.1702. On February 24, 2009, 15 individuals working on the refuel floor were contaminated and several received small intakes of radioactive material during installation of the cover. Low levels of airborne radioactivity were created and contamination was spread over large areas of the refuel floor. The individuals involved in the work activity were not provided with instruction for the installation and were unfamiliar with the task. Also, neither an ALARA Plan nor radiation work permit (RWP) specified if or how the drywell head was to be covered because the work package lacked sufficient detail. As corrective actions, the licensee removed the parachute cover and applied a fixative to the drywell head to minimize further spread of contamination. An experienced supervisor was assigned to the refuel floor to better oversee work activities.

The inspectors did not identify any examples in IMC 0612, Appendix E, similar to the performance issue. However, the inspectors determined that the finding was more than minor because it impacted the program and process attribute of the Occupational Radiation Safety Cornerstone and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. Specifically, the failure to evaluate the methods used to install the parachute cover and use engineering controls resulted in personal contaminations and intakes to several workers. The finding was determined to be of very low safety significance because it was not an ALARA planning issue, there was no overexposure nor substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. The work package was incomplete and failed to prescribe if and how the cover was to be installed over the drywell head to ensure a successful outcome. Consequently, the cause of the problem involved a cross-cutting component in the human performance area for resources (H.2.(c)), in that, the licensee did not ensure that personnel, equipment and procedures including the work package were available and adequate. (Section 2RS3.1).

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

Significance: **G** Jun 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure To Effectively Use The Intended Radiological Engineering Controls During Cavity Drain-Down In Preparation For Its Decontamination.

5A finding of very low safety significance and an associated NCV of Technical Specification 5.4.1 was self-revealed during reactor cavity drain down. On March 14, 2009, an airborne radioactivity condition (about 3.3 DAC (derived air concentration)) was generated on the refuel floor when the cavity water level was lowered to support decontamination activities. The inspectors concluded that the licensee failed to effectively implement intended radiological engineering controls in accordance with the ALARA Plan, which caused the event. Due to a communication problem, cavity drain-down commenced before the decontamination crew already positioned on the refuel floor was ready to support the activity. Moreover, the drain down proceeded at a rate faster than expected by the work crew. The work plan called for the cavity walls to be misted with water as the drain-down took place. Five workers had small (low dose) unplanned intakes. Corrective actions focused on the communications problem and better controlling the rate of drain-down through a procedural modification.

The inspectors did not identify any examples in IMC 0612, Appendix E, similar to the performance issue. However, the inspectors determined that the finding was more than minor because it impacted the program and process attribute of the Occupational Radiation Safety Cornerstone and adversely affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. Specifically, the failure to effectively implement intended engineering controls during cavity drain-down caused several unplanned worker intakes and placed workers at increased radiological risk. The finding was determined to be of very low safety significance because it was not an ALARA planning issue, there was no overexposure nor substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. The cause of the problem involved a cross-cutting component in the human performance area for inadequate work control (H.3.(b)), in that, the licensee did not appropriately coordinate work activities by incorporating actions to address the need for work groups to communicate and coordinate with each other during activities in which interdepartmental coordination was necessary to assure human performance. (Section 2RS3.1).

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

Public Radiation Safety

Significance: **G** Nov 30, 2010

Identified By: NRC

Item Type: FIN Finding

Failure to Follow Procedure when Completing Regulatory Applicability Form for a New WARF, RISB, and OSSC Procedure

A finding of very low safety significance was identified by the inspectors for the licensee's failure to follow procedure NOBP-LP-4003A, FENOC 10 CFR 50.59 User Guidelines, when a new procedure was written and implemented describing the operation of the waste abatement reclamation facility (WARF), radioactive interim storage facility (RISB), and on-site storage and container yard (OSSC). Specifically, the determination that new procedure HPI-K0009, "Operation of the WARF, RISB and OSSC Yard," was a managerial or administrative change and, therefore, the 50.59 process was not applicable, did not comply with the direction provided in Section 1.1 of NOBP-LP-4003A. As a result, the differences in the use of these facilities as specified in Procedure HPI-K0009, with their design basis and USAR descriptions were not identified and evaluated. The licensee has rescinded this procedure until the regulatory evaluation is completed.

The finding was determined to be more than minor because it was associated with the Public Radiation Safety Cornerstone attribute of program/process and adversely affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Appendix D, "Public Radiation Safety," to assess its significance. The inspectors determined that the finding did not involve radioactive material control, there

was not a substantial failure to implement the radiological effluent program, and public dose was less than criteria in 10 CFR Part 50, Appendix I, and 10 CFR 20.1301. This finding is associated with a cross-cutting aspect in the resources component of the human performance cross cutting area because the licensee did not ensure complete, accurate, and up-to-date design documentation and procedures are available. Specifically, there were eleven instances where issues related to operating the WARF, RISB, and OSSC outside of their design bases were identified since 2000 and no actions to correct these issues were developed until 2010, when a procedure was issued (H.2(c)).
Inspection Report# : [2010007](#) (pdf)

Significance: SL-IV Jul 16, 2010

Identified By: NRC

Item Type: VIO Violation

Deliberate Failure to Follow Portal Monitor Use Procedure - traditional enforcement portion - traditional enforcement portion.

A willful violation was identified through an OI Investigation for the failure to comply with the procedure that governed portal radiation monitor usage. Specifically, a contract radiation protection technician deliberately violated a radiation protection procedure when the technician exited the Perry site without authorization from radiation protection supervision following three consecutive portal monitor alarms at the personal access facility.

The significance of the violation was assessed using Traditional Enforcement because it was determined to be willful. A Severity Level IV violation was determined to be appropriate because the incident had more than minor safety significance given that the technician was radioactively contaminated and departed the site. The violation was cited since it was willful and because the licensee failed to: (1) timely and appropriately respond to the incident; (2) adequately assess the potential for offsite contamination; and (3) take corrective action to ensure against recurrence.

The associated Performance Deficiency is item 2010-008-02.

Inspection Report# : [2010008](#) (pdf)

Significance:  Jul 01, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Deliberate Failure to Follow Portal Monitor Use Procedure - Performance Deficiency portion.

A willful violation was identified through an OI Investigation for the failure to comply with the procedure that governed portal radiation monitor usage. Specifically, a contract radiation protection technician deliberately violated a radiation protection procedure when the technician exited the Perry site without authorization from radiation protection supervision following three consecutive portal monitor alarms at the personal access facility.

Failure to follow this procedure represents a performance deficiency. The issue had more than minor safety significance because the RPT was radioactively contaminated and departed the site. The inspectors determined that no cross-cutting components applied to this issue, because the underlying performance issue was the same as the performance deficiency (Failure to follow procedure).

The Traditional Enforcement portion of this issue is tracked as item 2010-008-01.

Inspection Report# : [2010008](#) (pdf)

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

