Perry 1
2Q/2011 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2011
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO VERIFY EXPECTED EFFECTS RESULTS IN OVERFLOWING THE AUXILIARY BUILDING SUMP
A finding of very low safety significance and associated NCV of Technical Specification 5.4.1 was self-revealed for the licensee's failure to follow plant procedures. The inspectors determined that the licensee failed to follow a procedure which requires verification of expected effects when operating plant components. This failure led to draining approximately 15,000 gallons of suppression pool water which overflowed the Auxiliary Building sump and caused the spread of contamination to various areas of the Auxiliary Building. The licensee entered the issue into their corrective action program. Immediate actions included securing all sources of water to the Auxiliary Building sump and removing water from the Auxiliary Building.

This performance deficiency was determined to be more than minor because it impacted the Human Performance attribute of the Initiating Events cornerstone, 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 finding is of very low safety significance because it did not increase the likelihood of a loss of reactor coolant system inventory, degrade the licensee's ability to terminate a leak path or add inventory, or degrade the licensee's ability to recover decay heat removal. The finding was associated with a cross-cutting aspect in the Resources component of the Human Performance cross-cutting area per IMC 0310 (H.2(c)), because the licensee did not provide complete, accurate and up-to-date procedures. Specifically, the procedure to test the residual heat removal waterleg pump did not address the potential to drain the suppression pool to the Auxiliary Building sump.
Inspection Report# : 2011003 *(pdf)*

Significance: G 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: G 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:  Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ESTABLISH A PROCEDURE TO OPERATE SAFETY-RELATED EQUIPMENT
The inspectors identified a finding of very low safety significance and associated NCV of Technical Specification 5.4.1.a, for failure to establish a procedure to remove power from the shutdown cooling isolation valves while shutdown cooling was in operation during a plant refueling outage. The inspectors determined that the licensee performed an activity that affected quality without a proper procedure in place. The licensee entered the issue into their corrective action program.

This performance deficiency was determined to be more than minor because it impacted the Procedure Quality 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). This finding is of very low safety significance because the risk significance was evaluated to have a delta core damage frequency of less than E-6/yr and a delta large early release frequency of less than E-7/yr. This finding was associated with a cross-cutting aspect in the Work Practices component of the Human Performance cross-cutting area per IMC 0310 (H.4(b)) because the licensee did not effectively communicate expectations regarding procedural compliance and personnel following procedures. Specifically, the operators did not question operating safety-related plant equipment without appropriate procedural guidance.

Inspection Report# : 2011003 *(pdf)*

Significance:  Jun 30, 2011
Identified By: NRC
Item Type: FIN Finding

FAILURE TO FOLLOW TECHNICAL SPECIFICATION BASES
The inspectors identified a finding of very low safety significance for failure to follow Technical Specification Limiting Condition for Operations 3.0.2 bases. The inspectors determined that the licensee rendered safety-related plant equipment inoperable and entered TS 3.6.1.3 Condition A for operational convenience. The licensee entered the issue into their corrective action program.

This performance deficiency was determined to be more than minor because it impacted the Configuration Control 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). This finding is of very low safety significance because it does not increase the likelihood that a loss of decay heat removal, reactor coolant system inventory, or offsite power will occur and does not degrade the ability to terminate a leak path, recover decay heat removal once it is lost, or establish an alternate core cooling path if decay heat removal cannot be re established. This finding was associated with a cross-cutting aspect in the Decision Making component of the 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 chose to disable automatic protective features of a plant system while performing “high-risk” activities.
Inspection Report# : 2011003 *(pdf)*

Significance: G 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: G 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: G 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: G 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: G 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: G 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)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G May 25, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Insufficient detail in work instructions when retracting a Source Range Monitor. (Section 4OA5.6)
The NRC identified a finding of very low safety significance and a non-cited violation (NCV) of regulatory requirements contained in TS 5.4. “Procedures.” Specifically, the licensee had insufficient detail in its instructions to workers, to ensure that the SRM-C cable take-up cartridge was installed correctly. Additionally, the workers failed to follow procedure in removing a nominal nine feet of excess SRM detector cable. The licensee entered this issue into its corrective action program (CAP) as CR 11-93247.

The inspectors reviewed the guidance in IMC 0612, Appendix E, “Examples of Minor Issues,” and did not identify any examples similar to the performance deficiency. However, in accordance with IMC 0612, the inspectors determined that the performance deficiency was more than minor because if left uncorrected the performance deficiency had the potential to lead to a more significant safety concern. Therefore, the performance deficiency was a finding. The finding did not involve ALARA, did not involve an overexposure or a substantial potential for an overexposure, and did not compromise the licensee’s ability to access dose. Consequently, the inspectors concluded that the finding was of very low safety significance (Green). The finding was also a non-cited violation (NCV) of regulatory requirements contained in Technical Specification 5.4. “Procedures.” The finding had a cross-cutting aspect in the area of human performance related to the cross-cutting component of work practices, in that, work instructions lacked sufficient detail to ensure appropriate radiological controls were in place and the licensee did not ensure that personnel followed procedures (H.4. b). (Section 4OA5.6)
Inspection Report# : 2011013 *(pdf)*

Significance: W May 25, 2011
Identified By: NRC
Item Type: VIO Violation
The Licensee Failed to Appropriately Identify and Assess the Radiological Hazards when retracting a Source Range Monitor. (Section 4OA5.7)
The NRC identified a finding and three apparent violations of NRC requirements associated with the removal of a source range monitor from the reactor vessel. Specifically, the inspectors identified an apparent violation of Title 10 of the Code of Federal Regulations (CFR) part 20.1501 “Surveys and Monitoring,” because licensee failed to

appropriately evaluate and assess the radiological hazards associated with retracting a source range monitor from the reactor vessel. The inspectors also identified examples of apparent violations of Technical Specifications requirements 5.4. “Procedures” and 5.7. “High Radiation Area” associated with this finding. Following this event, the licensee instituted several corrective actions including procuring a new shielded retrieval and transport cask, retracting the source range monitor (SRM) detector and cable into the cask from the carousel instead of the sub-pile room floor, and implementing changes to plant procedures and the plant planning process to more effectively control this work. Additionally, a root cause evaluation was initiated under condition report (CR) 11-932471.

The inspectors reviewed the guidance in NRC Inspection Manual Chapter (IMC) 0612, Appendix E, “Examples of Minor Issues,” and did not identify any examples similar to the performance deficiency. However, in accordance with IMC 0612, the inspectors determined that the performance deficiency was more than minor because it could be viewed as a precursor to a significant event. Therefore, the performance deficiency was a finding. The finding did not involve “as low as reasonably achievable” (ALARA) planning or work controls and there was no overexposure. However, the inspectors determined that a substantial potential for an overexposure did exist, in that, it was fortuitous that the resulting exposure did not exceed the limits of 10 CFR Part 20. The event did not occur in a very high radiation area, nor was the licensee’s ability to access dose compromised. Consequently, the inspectors concluded that the finding was preliminarily determined to be of White safety significance. The finding had a cross-cutting aspect in the area of human performance related to the cross-cutting component of decision making, in that, the licensee did not use conservative assumptions when developing the work package and authorizing the work for the removal of SRM-C (H.1.b). (Section 4OA5.7)

Final SDP Issued on August 28, 2011 (ml112371689) - with revised violation text as follows:

A. Title 10 of the Code of Federal Regulations (10 CFR) Part 20 Subpart F – Surveys and Monitoring Section 20.1501 requires, in part, that licensees make surveys that may be necessary to comply with the regulations in Part 20 and are reasonable under the circumstances to evaluate the magnitude and extent of radiation levels and the potential radiological hazards. Pursuant to 10 CFR 20.1003, survey means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal or presence of radioactive material or other sources of radiation.

Contrary to the above, as of April 21, 2011, the licensee failed to make surveys to evaluate the potential radiological hazards incident to work activity to assure compliance with 10 CFR 20.1201, which limits the occupational dose to individual adults. Specifically, the licensee did not perform an evaluation of the potential radiological hazards associated with the work activity prior to authorizing removal of an irradiated
in-core source range monitor (SRM).

B. Technical Specification 5.7.1.b states, in part, that entry into high and locked high radiation areas be made after the dose rate levels in the area have been established and personnel are made aware of them.

Contrary to the above, on April 21, 2011, the licensee permitted entry into a high radiation area without establishing the dose rate levels in the area and without personnel being made aware of the dose rates. Specifically, the licensee did not perform a complete radiological characterization of the SRM (a radiological source of unknown magnitude), which was being pulled toward the work area and toward the workers’ escape path. Consequently, the licensee did not inform the workers of the potential dose rate levels associated with their entry into the high radiation area.

C. Technical Specification 5.4.1 requires that written procedures be established, implemented, and maintained covering the activities in Regulatory Guide 1.33, Revision 2, Appendix A, dated February 1978.

Regulatory Guide 1.33, Revision 2, Appendix A Section 7 addresses, in part, procedures for control of radioactivity for limiting personnel exposure. Section 7.e(1) addresses procedures for access control to radiation areas including a radiation work permits system and Section 7.e(9) addresses procedures for implementation of an as low as is reasonably achievable (ALARA) program.

The licensee established Procedure HPI-C0015, Revision 00, “Radiological Controls for Highly Radioactive and Irradiated Components or Materials,” to control highly radioactive objects and materials removed from the reactor vessel.

The licensee established Procedure NOP-OP-4107, Revision 05, “Radiation Work Permit,” in part, for implementation of an ALARA program. Step 4.3.2.3 of this procedure states, in part, that ALARA plans are developed with sufficient detail on what requirements, considerations and actions are to be ALARA for the work activity.

Contrary to the above, as of April 21, 2011, the licensee:

a. Failed to establish a procedure that addressed access control to all radiation areas. Specifically, Procedure HPI-C0015 only addressed work activities on the refueling floor and did not address access control to the undervessel radiation area or control of highly radioactive objects and materials removed from the reactor vessel through the undervessel area.

b. Failed to implement Procedure NOP-OP-4107, in that the ALARA plan for work on the SRM lacked sufficient detail about the requirements, consideration, and actions to ensure that the work activity was performed in an ALARA manner. Specifically, the ALARA plan did not ensure that the work activity to retract the irradiated SRM-C contained steps to ensure that the ambient radiation field in the work area in the carousel and sub-pile room areas was being controlled and that the worker actions were in accordance with ALARA considerations.

A. Title 10 of the Code of Federal Regulations (10 CFR) Part 20 Subpart F – Surveys and Monitoring Section 20.1501 requires, in part, that licensees make surveys that may be necessary to comply with the regulations in Part 20 and are reasonable under the circumstances to evaluate the magnitude and extent of radiation levels and the potential radiological hazards. Pursuant to 10 CFR 20.1003, survey means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal or presence of radioactive material or other sources of radiation.

Contrary to the above, as of April 21, 2011, the licensee failed to make surveys to evaluate the potential radiological hazards incident to work activity to assure compliance with 10 CFR 20.1201, which limits the occupational dose to individual adults. Specifically, the licensee did not perform an evaluation of the potential radiological hazards associated with the work activity prior to authorizing removal of an irradiated
in-core source range monitor (SRM).

(Also numberd as 2011-014-01, but in reality is 2011-013-02)
Inspection Report# : 2011013 *(pdf)*

Significance: G 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)*

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-data 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 Perfomrnace Deficiency is item 2010-008-02.
Inspection Report# : 2010008 *(pdf)*

Significance: G 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 Enforcment 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

Last modified : October 14, 2011