

Monticello

3Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2012

Identified By: NRC

Item Type: FIN Finding

BUS 12 LOCKOUT CAUSED BY INADEQUATE WORK PLAN.

A finding of very low safety significance was self-revealed on September 25, 2012, when a reactor scram occurred during planned testing of the 2R to Bus 12 local (switchgear cubicle A201) and remote (control room panel C-08) ammeter switches. As a result of the site's failure to effectively plan the work activity, the performance of the testing resulted in the lockout of Bus 12, and loss of 12 reactor feedwater pump and the 12 recirculation pump. During the ensuing plant transient, a main turbine trip occurred, followed immediately by a reactor scram, when reactor water level reached the Reactor Water Level Hi Hi setpoint (+48"). The licensee entered this issue into their CAP and is performing root cause evaluations to further evaluate the post-scram reactor water level control and the ineffective work planning associated with development of the work order used to conduct the testing. The inspectors determined that the most significant causal factor associated with the performance deficiency was associated with the cross-cutting area of Human Performance, having resources components, and involving aspects associated with procedures and work packages are available and adequate to assure nuclear safety [H.2(c)]. The inspectors determined that the licensee's failure to develop and implement work documents which adequately tested the 2R to Bus 12 ammeter switches was a performance deficiency because it was the result of the failure to meet a requirement or standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the procedural quality attribute of the Initiating Events 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 inspectors applied IMC 0609, Appendix A, "The SDP for Findings At-Power," to this finding. The inspectors evaluated the issue under the Initiating Events Cornerstone, and utilized Exhibit 1, "Initiating Events Screening Questions," to screen the finding. Under Section B, "Transient Initiators," the inspectors answered "No" to the question "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?" and determined the finding to be of very low safety significance.

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

Significance: G Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MONITOR CONDENSATE FEEDWATER SYSTEM UNDER 50.65(a)(1) DUE TO INADEQUATE MAINTENANCE RULE FAILURE TRACKING.

The inspectors identified a finding of very low safety significance and non-cited violation (NCV) of 10 CFR 50.65(a)(2), "Requirements for Monitoring the Effectiveness

of Maintenance at Nuclear Power Plants,” for the licensee’s failure to establish an a(1) action plan and associated goals when the condensate feedwater (CFW) system a(2) preventative maintenance demonstration became invalid. Specifically, in May 2011, the No. 12 CFW train exceeded its performance criteria when it experienced two maintenance preventable functional failures (MPFFs). The licensee failed to appropriately account for these failures in their Maintenance Rule Program and, as a result, the site failed to monitor the equipment under 10 CFR 50.65(a)(1) as required. Corrective actions taken by the licensee to address this issue included performing a root cause evaluation of the site’s Maintenance Rule programmatic deficiencies; performing an extent of condition which identified several other instances where MPFFs of other systems had not been accounted for; and creating an a(1) action plan for the CFW system. These issues were entered into the licensee’s corrective action program as CAP 01321996, CAP 01324083, and CAP 01323429.

The inspectors determined that the licensee’s failure to monitor the CFW system in accordance with the requirements of 10 CFR 50.65(a)(1) due to inadequately accounting for two MPFFs under 10 CFR 50.65(a)(2) was a performance deficiency, because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee’s ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, “Power Reactor Inspection Reports,” Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Initiating Events 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 inspectors applied IMC 0609, Attachment 4, “Phase 1 – Initial Screening and Characterization of Findings,” to this finding. The inspectors evaluated the issue under the Initiating Events Cornerstone, and utilized Column 1 of the Table 4a worksheet to screen the finding. For transient initiators, the inspectors answered “No” to the question, “Does the finding contribute to both the likelihood of a reactor trip AND the likelihood that

2 Enclosure mitigation equipment or functions will not be available?” and determined the finding to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross-cutting area of Problem Identification and Resolution, having corrective action program (CAP) components, and involving aspects associated with the licensee trending and assessing items from the CAP in the aggregate to identify programmatic and common cause problems, and communicating the results of the trending to applicable personnel [P.1(b)].

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

Significance: G Mar 31, 2012

Identified By: Self-Revealing

Item Type: FIN Finding

INEFFECTIVE MANAGEMENT OF TURBINE LUBE OIL TANK VACUUM RESULTING IN FOULING OF GROUNDING BRAIDS.

A finding of very low safety significance was self-revealed on November 19, 2011, when a reactor scram occurred during planned turbine-generator testing, as a result of the site’s failure to effectively monitor and control turbine lube oil (TLO) tank vacuum and perform turbine shaft voltage monitoring in accordance with vendor recommendations. The mismanagement of the ability to monitor and control TLO tank vacuum led to the fouling of turbine shaft grounding braids and subsequent

degradation of the turbine speed governor drive gears through electrolysis.

The degradation of the front standard components ultimately resulted in control oil pressure oscillations during speed load changer testing, which activated the load rejection pressure switches and scrambled the plant. Corrective actions taken by the licensee to address this issue included repairing the speed governor gear drive and main shaft oil pump components; installing a more robust shaft grounding strap; improving the instrumentation on the TLO tank and adjusting the control bands on the operator logs; and developing a revised testing methodology for generator electrical checks to include vendor recommendations.

The inspectors determined that the licensee's failure to effectively monitor and control TLO tank vacuum and perform turbine shaft voltage monitoring in accordance with vendor recommendations was a performance deficiency because it was the result of the failure to meet a requirement or standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented.

The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the procedure adequacy attribute of the Initiating Events Cornerstone's 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 inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. The inspectors evaluated the issue under the Initiating Events Cornerstone, and utilized Column 1 of the Table 4a worksheet to screen the finding. For transient initiators, the inspectors answered "No" to the question, "Does the finding contribute to both the likelihood of a reactor trip AND the likelihood that mitigation equipment or functions will not be available?" and determined the finding to be of very low safety significance. The inspectors determined that the most significant causal factor associated with the performance deficiency was associated with the cross-cutting area of Human Performance, having resources components, and involving aspects associated with procedures are available and adequate to assure nuclear safety [H.2(c)].

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

Significance:  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

'E' CONDENSATE DEMINERALIZER ALARM RESPONSE PROCEDURE LIMITS EXCEEDED.

The inspectors identified a finding of very low safety significance and non cited violation (NCV) of Technical Specification (TS) 5.4.1, "Procedures," when the operators did not take conservative action to address a high differential pressure condition on an inservice condensate demineralizer vessel. Specifically, operators allowed the 'E' condensate demineralizer to exceed differential pressure operating limits prescribed in Alarm Response Procedure 80 DPAH 2215, "Vessel T 7E D/P High," and remain above those prescribed limits for approximately a shift before taking action to correct the abnormal condition. Specific corrective actions taken by the licensee to address this issue included updating the applicable alarm response procedures and operating procedures to reflect current system limitations; engineering management reinforcing the expectation that informal processes are not acceptable when communicating technical guidance to operations staff; and site management reinforcing the expectation that, once a degrading trend is recognized, actions must be taken in sufficient time to prevent crossing established operating limits.

The inspectors determined that the licensee's failure to maintain the 'E' condensate demineralizer differential pressure within prescribed operational limits was a performance deficiency because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee's ability to foresee and correct; and should

have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the Human Performance attribute of the Initiating Events 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 inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. The inspectors utilized Column 1 of the Table 4a worksheet to screen the finding. For transient initiators, the inspectors answered 'no' to the question, "Does the finding contribute to both the likelihood of a reactor trip AND the likelihood that mitigation equipment of functions will not be available," and determined the finding to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Human Performance, having Work Control components, and involving aspects associated with the licensee planning and coordinating work activities, consistent with nuclear safety, specifically the need for planned contingencies, compensatory actions, and abort criteria [H.3(a)].

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

Significance:  Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

INADEQUATE COMPLETION OF CAPRS ASSOCIATED WITH 2RS TO 2R FEEDER CABLE TESTING.

A finding of very low safety significance and NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," was self revealed following a reactor scram, which was the direct result of an electric plant realignment caused by a faulted feeder cable and lockout of the station's 2R transformer. Specifically, annual testing to monitor the performance of the 2R feeder cables, which was put in place as a corrective action to prevent recurrence to address issues identified subsequent to a similar event in 2008, had not been performed since the cables were placed back in service following that event. To address the identified material deficiencies, the licensee replaced and tested the electrical cables between 2RS and 2R in their entirety, employing a new route designed to avoid cable submergence. Additional corrective actions were put in place to strengthen the licensee's planned maintenance deferral process and their cable condition monitoring program.

The inspectors determined that the licensee's failure to perform annual testing of the 2R transformer feeder cables, as required by the station's planned maintenance program, was a performance deficiency because it was the result of the failure to meet a requirement or a standard, the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. The inspectors determined that the issue was more than minor because it impacted the Configuration Control attribute of the Initiating Events 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 inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. The inspectors utilized Column 1 of the Table 4a worksheet to screen the finding. Because the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions would not be available, the Region III Senior Reactor Analyst (SRA) performed a Phase 3 analysis, and screened the finding to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Human Performance, having decision making components, and involving aspects associated with the licensees' making safety significant or risk-significant decisions using a systematic process to ensure safety is maintained [H.1(a)].

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

Significance:  Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

ROD WORTH MINIMIZER INOPERABLE DURING REACTOR PLANT STARTUP.

A finding of very low safety significance and NCV of TS 3.3.2.1, “Control Rod Block Instrumentation,” was self revealed to the operating crew, when normal startup testing could not be accomplished due to improperly configured equipment. Specifically, the operating crew transitioned from Mode 4 to Mode 2, with the rod worth minimizer (RWM) mode switch in the BYPASS position. With the RWM mode switch in the BYPASS position and the required actions of 3.3.2.1(c) not met, the requirements of TS 3.3.2.1, that the RWM be operable in Mode 1 and Mode 2 when thermal power is less than or equal to 10 percent rated thermal power, could not be met. Actions taken by the licensee in response to this event included declaring the event a reactivity management event; making an NRC notification under 50.72(b)(3)(v)(D); resetting their site event clock; providing additional training for the applicable operating crew; and revising procedures associated with this event to clarify the sequencing of key activities associated with the transition between Mode 4 and Mode 2.

The inspectors determined that the licensee’s failure to properly control the configuration of the RWM prior to entering an operating mode that required its operability was a performance deficiency, because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee’s ability to foresee and correct; and should have been prevented. The inspectors determined that the issue was more than minor because it impacted the Configuration Control attribute of the Initiating Events 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 inspectors applied IMC 0609, Attachment 4, “Phase 1 – Initial Screening and Characterization of Findings,” to this finding. The inspectors answered ‘No’ to the questions associated with transient initiators and screened the finding to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Human Performance, having work practices components, and involving aspects associated with personnel work practices that support human performance, specifically in the areas of pre job briefing, self and peer checking, and proper documentation of activities [H.4(a)].

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

Mitigating Systems

Significance:  Sep 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CONTROL THE CONFIGURATION OF DOOR 45 DURING MODIFICATION.

The inspectors identified a finding of very low safety significance and an associated non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” when the licensee failed to properly implement work instructions during the modification of reactor building doors which have both secondary containment and high energy line break (HELB) mitigation functions. Specifically, the licensee failed to ensure that the work documents used to perform the modification and the level of supervision of the performance of the work tasks were adequate to ensure that the HELB function of the doors remained available, as required by existing plant conditions, during the implementation of the modification. The licensee entered this issue into their corrective action program (CAP), and corrective actions for this issue included performing a root cause evaluation, resetting their site event clock, and revising the work documents associated with door 45 and door 46 modifications to include multiple barriers to ensure that the doors remain capable of performing their required functions during a HELB event. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Human Performance, having work practices components, and involving aspects associated with the licensee ensuring supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported [H.4(c)].

The inspectors determined that the licensee's failure to adequately control the configuration of door 45 during the modification work was a performance deficiency, because it was the result of the failure to meet a requirement; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Exhibit 2, "Mitigating Systems Screening Questions," to screen the finding.

The inspectors answered "No" to all the questions in Section A, "Mitigating Structures, Systems, and Components (SSCs) and Functionality," and Section B, "External Event Mitigating Systems," and determined the finding to be of very low safety significance.

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

Significance:  Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MONITOR RESIDUAL HEAT REMOVAL SYSTEM UNDER 10 CFR 50.65(a)(1) DUE TO INAPPROPRIATE a(2) TRANSITION.

The inspectors identified a finding of very low safety significance and non cited violation (NCV) of 10 CFR 50.65(a)(1)/(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for the licensee's failure to establish a(1) goals for the residual heat removal (RHR) system when the a(2) preventative maintenance demonstration became invalid. Specifically, in June 2011, the No. 13 RHR pump exceeded its performance criteria when it experienced a second maintenance preventable functional failure (MPFF). In February 2012, the inspectors identified both of these and a third MPFF, and while the licensee determined that the system required a(1) classification, the site failed to create goals for effective monitoring of the equipment when they inappropriately applied a(1) status exit criteria to the system. As a result, the site failed to monitor the equipment under 10 CFR 50.65(a)(1) as required. Corrective actions taken by the licensee to address this issue included revision of the a(1) action plan for the RHR system and retraining of Maintenance Rule Expert Panel members. This issue was entered into the licensee's corrective action program as CAP 01341703.

The inspectors determined that the licensee's failure to monitor the RHR system in accordance with the requirements of 10 CFR 50.65(a)(1), due to inappropriately transitioning the system from a(1) to a(2) status, was a performance deficiency because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Attachment 4, to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Column 2 of the Table 4a worksheet to screen the finding. The inspectors answered "No" to all five questions, and determined the finding to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Human Performance, having resources components, and involving aspects associated with the licensee having personnel, procedures, and other resources adequate to maintain long term plant safety by maintenance of design margins and minimizing of long standing equipment issues [H.2(a)].

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

Significance: G Jun 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MONITOR SSF PLANT LEVEL PERFORMANCE CRITERION EQUIPMENT UNDER 10 CFR 50.65(a)(1) DUE TO INADEQUATE SSF DATA TRACKING.

The inspectors identified a finding of very low safety significance and non cited violation (NCV) of 10 CFR 50.65(a)(1)/(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for the licensee's failure to evaluate a(1) goals for equipment tracked under the Safety System Failure (SSF) Plant Level Performance criterion when the plant level a(2) preventative maintenance demonstration became invalid. Specifically, in October 2011, the SSF plant level indicator exceeded its performance criterion when the plant experienced a fourth SSF in a two year period. The licensee failed to appropriately account for these failures in their Maintenance Rule program and, as a result, the site failed to evaluate the affected equipment under 10 CFR 50.65(a)(1) as required. Corrective actions taken by the licensee to address this issue included performing an apparent cause evaluation of the equipment that caused the plant to exceed its plant level performance criterion. This issue was entered into the licensee's corrective action program as CAP 01339425 and CAP 01339429.

The inspectors determined that the licensee's failure to evaluate goal setting for the equipment that caused the plant to exceed its SSF performance criteria in accordance with the requirements of 10 CFR 50.65(a)(1), due to inadequately accounting for SSF data under 10 CFR 50.65(a)(2), was a performance deficiency because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Attachment 4, to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Column 2 of the Table 4a worksheet to screen the finding. The inspectors answered "No" to all five questions, and determined the finding to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting area of Human Performance, having work practices components, and involving aspects associated with the licensee communicating human error prevention techniques, such as self and peer checking and proper documentation of activities [H.4(a)].

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

Significance: G May 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Station Battery Capacity Test Procedure

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawing," for the licensee's failure to ensure the bases for sizing of the 250 Vdc safety-related batteries was incorporated into the battery capacity test procedure. Specifically, the licensee did not incorporate the commitment to replace the 250 Vdc batteries when battery capacity drops more than 10 percent of rated capacity from its capacity on the previous test. The licensee verified current operability and entered this issue into their corrective action process as Action Requests 01333346 and 01334083.

The finding was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of procedure quality, and affected the cornerstone objective to ensure the availability, reliability, and capability of 250 Vdc batteries that are essential for the proper functioning of systems that respond to initiating events to prevent undesirable consequences. The finding screened as having very low safety significance because it did not

represent an actual loss of safety function. The inspectors determined there was no cross-cutting aspect associated with this finding because it was not reflective of licensee's current performance due to the age of the issue.

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

Significance: G May 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Analyze Voltage Requirements for Operability of Non-Motor Loads and 120 Vac Instrument Panels.

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to evaluate the operability of safety-related 120 Vac instrument bus loads and 480 Vac non-motor loads under degraded voltage conditions. The inspectors determined several loads and panels did not have the minimum required voltage specified in station procedures, USAR or the manufacturer's specifications. The licensee entered this issue into their corrective action program as Action Requests 01332429, 01334571, and 01334562. The licensee performed testing and analyses, and implemented operating restrictions to obtain reasonable assurance of operability.

The finding was more than minor because it affected the Mitigating Systems Cornerstone attribute of Design Control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, there was reasonable doubt as to whether 480 Vac non-motor loads and equipment supplied by 120 Vac instrument buses had adequate voltage to operate during degraded voltage conditions. The finding was considered to be of very low safety significance (Green) since this was a design deficiency confirmed not to have resulted in a loss of operability or functionality because of licensee's compensatory actions. The inspectors determined the finding had a crosscutting aspect in the area of problem identification and resolution in that the licensee failed to perform a thorough extent of condition review and an assessment of reasonable assurance of operability when similar issues were identified in the 2009 NRC CDBI and a self-assessment performed in 2011.

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

Significance: G May 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain the Degraded Voltage Function Time Delay Design

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III for the licensee's failure to translate the actual time delay of the degraded voltage relay scheme under all circumstances into the station procedures and Technical Specifications. Specifically, a modification which introduced a five second time delay to the degraded voltage scheme resulted in inconsistencies in Technical Specification Table 3.3.8.1-1 and functionality of the degraded voltage relay scheme when the safety buses are aligned to Transformer 1AR. The licensee entered this issue into their corrective action program as Action Request 01334146, and removed Transformer 1AR from service to match the design with the Technical Specifications.

The finding was more than minor because it affected the Mitigating Systems Cornerstone attribute of Design Control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, there was reasonable doubt as to whether the degraded voltage scheme would perform as required by Technical Specifications during design basis conditions. The finding was considered to be of very low safety significance (Green) since the total degraded voltage protection scheme time delay of 15 seconds was commensurate with the current accident analysis in the Updated Safety Analysis

Report (USAR). The inspectors determined there was no cross-cutting aspect associated with this finding because it was not reflective of licensee's current performance due to the age of the issue.

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

Significance:  May 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Analyze Effect of Degraded Voltage on Proper Operation of Thermal Overload Relays

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to properly analyze thermal overload relays (TOLs) for Motor Operated Valves (MOVs) and continuous duty motors under degraded voltage conditions. The licensee entered this issue into their corrective action program as Action Requests 01332373, 01332567, and 01334042 and initiated modifications to ensure TOLs would perform as required.

The finding was more than minor because it affected the Mitigating Systems Cornerstone attribute of Design Control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, there was reasonable doubt as to whether safety-related MOVs and continuous duty motors would continue to operate without tripping during degraded voltage conditions. The finding was considered to be of very low safety significance (Green) since this was a design deficiency confirmed not to have resulted in a loss of operability or functionality because of licensee's compensatory actions. The inspectors determined there was no cross-cutting aspect associated with this finding because it was not reflective of licensee's current performance due to the age of the issue.

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

Significance:  May 30, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedures for Alignment of 120 Vac Instrument Buses

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to ensure single failure criterion is not violated by the procedure for simultaneously aligning both divisions of 120 Vac uninterruptible instrument power to their alternate, non-battery backed power sources. The licensee entered this issue into their corrective action program as Action Request 01334510 and implemented restrictions to prevent simultaneous alignment of both Divisions 1 and 2 instrument buses to their alternate sources, pending resolution.

The finding was more than minor because it affected the Mitigating Systems Cornerstone attribute of Procedure Quality, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the uninterruptible instrument power system and the systems supported by it would not be able to perform their required functions during events such as a loss of power or station blackout. The finding was considered to be of very low safety significance (Green) because it did not represent an actual loss of safety function since the licensee had not placed the equipment in this configuration. The inspectors determined there was no cross-cutting aspect associated with this finding because it was not reflective of licensee's current performance due to the age of the issue.

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

Significance: G Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MONITOR RESIDUAL HEAT REMOVAL SYSTEM UNDER 50.65(a)(1) DUE TO INADEQUATE MAINTNENACE RULE EVALUATIONS.

The inspectors identified a finding of very low safety significance and non-cited violation (NCV) of 10 CFR 50.65(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for the licensee's failure to establish an a(1) action plan and associated goals when the residual heat removal (RHR) system a(2) preventative maintenance demonstration became invalid. Specifically, in June 2011, the No. 13 RHR pump exceeded its performance criteria when it experienced a second maintenance preventable functional failure (MPFF). The licensee failed to appropriately evaluate these failures in their Maintenance Rule Program and, as a result, the site failed to monitor the equipment under 10 CFR 50.65(a)(1) as required. Corrective actions taken by the licensee to address this issue included performing a root cause evaluation of the site's Maintenance Rule programmatic deficiencies, and creating an a(1) action plan for the RHR system. The issue was entered into the licensee's corrective action program as CAP 01325200.

The inspectors determined that the licensee's failure to monitor the RHR system in accordance with the requirements of 10 CFR 50.65(a)(1) due to inadequately evaluating three MPFFs under 10 CFR 50.65(a)(2) was a performance deficiency, because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Attachment 4, to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Column 2 of the Table 4a worksheet to screen the finding. The inspectors answered "No" to all five questions, and determined the finding to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross-cutting area of Human Performance, having work practices components, and involving aspects associated with the licensee ensuring supervisory and management oversight of work activities, such that nuclear safety is supported [H.4(c)].

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

Significance: G Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE EVALUATION OF COMPENSATORY MEASURE.

The inspectors identified a finding of very low safety significance and violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to identify and properly evaluate a compensatory measure imbedded in an operability recommendation associated with MO-2020 [RHR Division I Drywell Spray – Outboard] and MO-2021 [RHR Division II Drywell Spray – Outboard] in accordance with licensee procedure FP-OP-OL-01, "Operability/Functionality Determination."

Specifically, the operability recommendation directed operators, upon receipt of a dual indication on MO-2020/MO-2021, to perform actions documented in an operational decision making instruction (ODMI), which were not identified or evaluated as compensatory measures, nor were they conducted in accordance with an approved procedure. Corrective actions taken by the licensee included revising the applicable operability recommendation, in part to eliminate the imbedded compensatory measure, eliminating the applicable ODMI, and preparing and implementing an Operations Manual procedure change, which provides operators instructions on actions to take if an unexpected dual indication should occur on MO-2020 or MO-2021.

4 Enclosure

The inspectors determined that the failure to identify and appropriately evaluate a compensatory measure imbedded in OPR 01323839-01 was a performance deficiency, because it was the result of the failure to meet a requirement or standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted configuration control attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Column 2 of the Table 4a worksheet to screen the finding. The inspectors answered "No" to all five questions and determined the finding to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross-cutting area of Problem Identification and Resolution, having corrective action components, and involving aspects associated with the licensee thoroughly evaluating problems such that the resolutions address the causes and extent conditions, as necessary. This includes properly evaluating for operability conditions adverse to quality [P.1(c)].
Inspection Report# : [2012002](#) (*pdf*)

Significance: SL-IV Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MAKE A REQUIRED 60 DAY EVENT REPORT PER 10 CFR 50.73(a)(2)(vii)(A-D).

The inspectors identified a Severity Level IV NCV and associated finding of very low safety significance of 10 CFR 50.73(a)(2)(vii)(A D), "Licensee Event Report System," for the failure to report an event to the NRC within 60 days, where a single cause or condition caused two independent trains to become inoperable in a single system designed to help maintain safe reactor shut down, remove residual heat, control radioactive releases, or mitigate accidents. Specifically, on September 29, 2011, the licensee identified that the surveillance test procedures being used to demonstrate load reject capabilities of both EDGs had never contained the correct load rejection testing requirements from the applicable design documents. As a result, the surveillances were considered never met, and both EDGs were declared inoperable. During their evaluation and subsequent reporting of the issue, the licensee failed to recognize that the inoperability of both diesel generators caused by a single common cause was reportable to the NRC within 60 days under the 50.73 common cause criterion. The licensee entered this issue into their corrective action program (CAP 1318116). Corrective actions for this issue included plans to revise their existing licensee event report (LER) and to perform an apparent cause evaluation to further evaluate the issue.

The inspectors determined that the failure to report required plant events or conditions to the NRC in accordance with reporting requirements was a performance deficiency because it was the result of the failure to meet a requirement or a standard, the cause was reasonably within the licensee's ability to foresee and correct, and should have been

prevented. In addition, it had the potential to impede or impact the regulatory process. As a result, the NRC dispositions violations of 10 CFR 50.73 using the traditional enforcement process instead of the SDP. However, if possible, the underlying technical issue is evaluated using the SDP. In this case, the inspectors determined that the licensee failed to develop and implement adequate Emergency Diesel Generator (EDG) testing procedures during their transition to the Improved Technical Specifications in 2006, which resulted in both EDGs being declared TS inoperable, but available for use. The inspectors determined that the performance deficiency was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Human Performance and Procedure Quality and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors determined that the finding had very low safety significance because they answered 'No' to all five questions contained in Column 2 of the Table 4a worksheet. As a result, the inspectors determined that the finding had very low safety significance (Green). In accordance with Section 6.9.d.9 and 6.9.d.10 of the NRC Enforcement Policy, this violation was categorized as Severity Level IV because it was an example where the licensee failed to make a report required by 10 CFR 50.73; it represented a failure to identify all applicable reporting codes on an LER that may impact the completeness or accuracy of other information submitted to the NRC; and the underlying technical issue was evaluated by the SDP and determined to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency affected the cross cutting area of Problem Identification and Resolution, having corrective action program components, and involving aspects associated with properly classifying and evaluating for reportability conditions adverse to quality [P.1(c)].

The Performance Deficiency associated with this finding is assigned tracking #05000263/2011005-06.
Inspection Report# : [2011005](#) (pdf)

Significance:  Dec 31, 2011

Identified By: NRC

Item Type: FIN Finding

FAILURE TO MAKE A REQUIRED 60 DAY EVENT REPORT PER 10 CFR 50.73(a)(2)(vii)(A-D).

The inspectors identified a Severity Level IV NCV and associated finding of very low safety significance of 10 CFR 50.73(a)(2)(vii)(A D), "Licensee Event Report System," for the failure to report an event to the NRC within 60 days, where a single cause or condition caused two independent trains to become inoperable in a single system designed to help maintain safe reactor shut down, remove residual heat, control radioactive releases, or mitigate accidents. Specifically, on September 29, 2011, the licensee identified that the surveillance test procedures being used to demonstrate load reject capabilities of both EDGs had never contained the correct load rejection testing requirements from the applicable design documents. As a result, the surveillances were considered never met, and both EDGs were declared inoperable. During their evaluation and subsequent reporting of the issue, the licensee failed to recognize that the inoperability of both diesel generators caused by a single common cause was reportable to the NRC within 60 days under the 50.73 common cause criterion. The licensee entered this issue into their corrective action program (CAP 1318116). Corrective actions for this issue included plans to revise their existing licensee event report (LER) and to perform an apparent cause evaluation to further evaluate the issue.

The inspectors determined that the failure to report required plant events or conditions to the NRC in accordance with reporting requirements was a performance deficiency because it was the result of the failure to meet a requirement or a standard, the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. In addition, it had the potential to impede or impact the regulatory process. As a result, the NRC dispositions violations of 10 CFR 50.73 using the traditional enforcement process instead of the SDP. However, if possible, the underlying technical issue is evaluated using the SDP. In this case, the inspectors determined that the licensee failed to develop and implement adequate Emergency Diesel Generator (EDG) testing procedures during their transition to the Improved Technical Specifications in 2006, which resulted in both EDGs being declared TS inoperable, but available for use. The inspectors determined that the performance deficiency was more than minor because it was associated with the Mitigating Systems Cornerstone attributes of Human Performance and Procedure

Quality and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using IMC 0609, Attachment 4, “Phase 1 – Initial Screening and Characterization of Findings,” the inspectors determined that the finding had very low safety significance because they answered ‘No’ to all five questions contained in Column 2 of the Table 4a worksheet. As a result, the inspectors determined that the finding had very low safety significance (Green). In accordance with Section 6.9.d.9 and 6.9.d.10 of the NRC Enforcement Policy, this violation was categorized as Severity Level IV because it was an example where the licensee failed to make a report required by 10 CFR 50.73; it represented a failure to identify all applicable reporting codes on an LER that may impact the completeness or accuracy of other information submitted to the NRC; and the underlying technical issue was evaluated by the SDP and determined to be of very low safety significance. The inspectors determined that the contributing cause that provided the most insight into the performance deficiency affected the cross cutting area of Problem Identification and Resolution, having corrective action program components, and involving aspects associated with properly classifying and evaluating for reportability conditions adverse to quality [P.1(c)].

The associated Traditional Enforcement item is Non-Cited Violaton (NCV) 05000263/2011005-05.
Inspection Report# : [2011005](#) (*pdf*)

Significance:  Dec 15, 2011

Identified By: NRC

Item Type: FIN Finding

Failure to Follow Fire Water Aging Management Program Implementing Procedure

The inspectors identified a finding of very low safety significance (Green) involving the licensee’s failure to accomplish activities affecting quality in accordance with procedures. Specifically, the licensee failed to incorporate operating experience in accordance with procedures. This impacted the licensee’s ability to implement an effective aging management program for the fire protection system. No violation of NRC requirements was identified.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of Protection Against External Factors (Fire) and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using IMC 0609, Appendix F, Fire Protection SDP, and the Monticello SPAR model, the inspectors determined that this finding had very low safety significance. The inspectors did not identify an associated crosscutting aspect for this finding. (Section 4OA5.7b.(1))

Inspection Report# : [2011010](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance:  Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY BLOCK AND BRACE A RADIOACTIVE PACKAGE FOR TRANSPORT.

The inspectors reviewed a self revealed finding of very low safety significance and an associated NCV of 10 CFR 71.5. Specifically, the licensee failed to appropriately block and brace a radioactively contaminated condensate demineralizer vessel within a transport package, such that, the package contents would not compromise and penetrate the transport package. The issue has been entered into the licensee's corrective action program as CR [condition report] 01294652. Corrective actions were implemented to address supervision's responsibilities during shipment preparation regarding appropriate blocking and bracing of package contents.

The finding was more than minor because the performance deficiency could be reasonably viewed as a precursor to a significant event, in that, the penetration of the transportation package by its contents could lead to the inadvertent spread of radioactive contamination in the public domain. Using IMC 0609, Attachment D, for the Public Radiation Safety SDP, the inspectors determined the finding to be of very low safety significance. The inspectors also determined that this finding had a cross cutting aspect in the area of problem identification and resolution (operating experience) [P.2(b)].

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

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Last modified : November 30, 2012