

Monticello

4Q/2009 Plant Inspection Findings

Initiating Events

Significance:  Sep 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

PRECONDITIONING OF SAFETY RELATED PRESSURE SWITCHES DURING SURVEILLANCE TESTING.

The inspectors identified a finding of very low significance and NCV of 10 CFR 50, Appendix B, Criterion V, for the licensee's failure to develop and implement an adequate surveillance test procedure to accurately assess the as found trip setpoint for the pressure switches associated with the main steam line low pressure isolation function.

Specifically, the testing methodology incorporated in the surveillance procedures utilized by the licensee to determine the reset and as found trip setpoints data unacceptably preconditions the pressure switches prior to obtaining the required test data. The licensee entered this issue into their corrective action program. The inspectors identified no cross-cutting aspects associated with this finding.

The inspectors determined that the performance deficiency was more than minor and a finding because it impacted the Reactor Safety Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power conditions. The inspectors evaluated the finding using IMC 0609, Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At Power Situations," using the Phase 1 Worksheet for the Initiating Events Cornerstone. Since the finding does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment functions will not be available, the inspectors concluded that the finding was of very low safety significance.

Inspection Report# : [2009004](#) (*pdf*)

Mitigating Systems

Significance:  Dec 04, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Emergency Service Water Piping Supports Did Not Meet Seismic Category 1 Design Basis Requirements

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," having very low safety significance for the failure to restore the emergency service water (ESW) piping supports to their design specifications. Specifically, although the licensee identified the existence of gaps between the ESW piping supports and the baseplates, the licensee failed to recognize that this condition did not meet seismic Category 1 design basis requirements. As a result, corrective actions were not implemented. The licensee entered this issue into its corrective action program and restored the supports to their design specifications.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of protection against external events and affected the cornerstone objective of ensuring the availability of the ESW system, and ultimately the emergency diesel generators (EDGs), to respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance (Green) because the design deficiency was confirmed not to result in loss of operability or functionality. This finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee did not properly prioritize and evaluate an identified problem.

Inspection Report# : [2009007](#) (*pdf*)

Significance:  Dec 04, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Adequately Evaluate Minimum Voltage Available at Safety-Related Electrical Components

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to adequately evaluate circuit loads in determining design limits in electrical calculations. Specifically, three examples were identified where the licensee (1) failed to perform a calculation for safety-related motor starters that included all control circuit loads in determining the minimum voltage available at 120Vac starter coils, which was used to establish the coil voltage test acceptance criteria; (2) failed to include thermal overload heater and starter contact resistance when calculating the minimum voltage at 480Vac motor terminals; and (3) failed to assure that the minimum voltage at the 120Vac solenoid operated control valves was in conformance with vendor requirements. These issues were entered into the licensee's corrective action program to re-evaluate the voltage available, and to test coils, as required, to verify the pick-up voltage.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability and capability of safety-related equipment to respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance (Green) because the design deficiency was confirmed, with the exception of ESW pump P-111B, not to result in loss of operability or functionality. Specifically, the failure to assure adequate voltage was available at the solenoid valves coils; and to perform periodic testing to assure the minimum voltage remained acceptable as the components aged, did not result in an impact on current operability. With respect to the ESW pump, it was determined that the pump would not have started under degraded voltage condition as required such that the ESW pump was considered inoperable. Based on a Phase III analysis, the failure of the pump to start under degraded voltage conditions was determined to be very low safety significance (Green). The inspectors did not identify a cross-cutting aspect associated with this finding because this was a legacy design issue and therefore was not reflective of current performance.

Inspection Report# : [2009007](#) (pdf)

Significance:  Dec 04, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Testing for Motor Control Center (MCC) Contactors

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," having very low safety significance for the failure to have adequate testing for safety-related equipment to monitor component degradation. Specifically, the licensee failed to verify that the motor control center contactors would continue to pick-up under degraded voltage conditions with less than the vendors' required minimum voltage. These issues were entered into the licensee's corrective action program to test the 13 contactors as soon as practicable and to revise the maintenance procedures to incorporate the requirements for periodic testing of contactors.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability and capability of safety-related equipment to respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance (Green) because the testing deficiency was confirmed, with the exception of emergency service water (ESW) pump P-111B, not to result in loss of operability or functionality. Specifically, subsequent testing confirmed for nine contactors that the safety-related starter coils would still function at the calculated degraded voltage values. Although three of the contactors have not been tested, they were of a different size than the failed contactor and there appeared to be reasonable assurance based on the successful tests that these contactors also remained operable. With respect to the ESW pump, the failed test confirmed that the motor starter contactor would not pickup under degraded voltage conditions due to mechanical binding of the contactor arm such that the ESW pump was considered inoperable. Based on a Phase III analysis, the failure of the pump to start under degraded voltage conditions was determined to be very low safety significance (Green). The inspectors did not identify a cross-cutting aspect associated with this finding because this was a legacy design issue and therefore was not reflective of current performance.

Inspection Report# : [2009007](#) (pdf)

Significance:  Dec 04, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Pipe Support Design Deficiencies

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure of two pipe supports to meet their design requirements. Specifically, the calculation for pipe support SR-526 failed to use the minimum yield strength in determination of the allowable bending stress of the pipe support baseplate as required in the American Institute of Steel Construction code. In addition, the calculation for pipe support PS-16 failed to use the design basis concrete compressive strength in determination of the anchor bolt allowable as required in the licensee's design specification. This finding was entered into the licensee's corrective action program and a preliminary analysis performed by the licensee concluded that the pipe supports were operable but nonconforming. This NCV was the result of a Power Uprate sample. The performance deficiency for pipe support SR-526 example was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of the safety-related residual heat removal and core spray pumps. This finding is of very low safety significance (Green) because the design deficiency was confirmed not to result in loss of operability or functionality. The performance deficiency for pipe support PS-16 example was more than minor because it was associated with the Barrier Integrity cornerstone attribute of design control and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. This finding is of very low safety significance (Green) because there was no actual barrier degradation. The inspectors did not identify a cross-cutting aspect associated with this finding because this was a legacy design issue and therefore was not reflective of current performance.

Inspection Report# : [2009007](#) (pdf)

Significance: SL-III May 27, 2009

Identified By: NRC

Item Type: VIO Violation

Failure to notify NRC of licensed operator's change in medical status per 50.74 & 50.9.

During an NRC inspection conducted on November 25, 2008 through February 2, 2009, violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

1. Title 10 CFR 50.74(c) requires that each licensee notify the appropriate Regional Administrator within 30 days of the permanent disability or illness, as described in 10 CFR 55.25, of a licensed operator or a senior operator. Contrary to the above, from July 8, 2004, until November 25, 2008, a period greater than 30 days, the licensee failed to notify the Region III Regional Administrator of a permanent disability or illness of a licensed senior operator. Specifically, the licensee was informed on July 8, 2004, that the operator was taking prescribed medication for hypertension, a permanent disability or illness.
2. Title 10 CFR 50.9 requires, in part, that information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, Orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects. Title 10 CFR 55.23 requires, in part, that to certify the medical fitness of the applicant, an authorized representative of the facility licensee shall complete and sign NRC Form 396, "Certification of Medical Examination by Facility Licensee." The NRC Form 396, when signed by an authorized representative of the facility licensee, certifies that a physician conducted a medical examination of the applicant and that the guidance contained in American National Standards Institute/American Nuclear Society (ANSI/ANS) 3.4-1983, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants" was followed in conducting the examination and making the determination of medical qualification. The ANSI/ANS 3.4-1983, Section 5.3, provides, in part, that the presence of certain medical conditions, unless adequately compensated by the methods specified in Subsections 5.3.1 through 5.3.9, shall disqualify the individual. Contrary to the above, on September 11, 2008, the facility licensee provided information to the NRC that was not complete and accurate in all material respects. Specifically, the licensee submitted NRC Form 396 for renewal of a senior reactor operator's license and the NRC Form 396 certified that the applicant met the medical requirements of ANSI/ANS 3.4-1983 with the single restriction that the applicant was required to wear corrective lenses when performing licensed duties. However, in July 2004, the senior reactor operator was prescribed medication to adequately compensate for hypertension, a disqualifying medical condition. The certification by the senior licensee facility representative was material to the NRC because the NRC relied upon this certification to renew the senior reactor operator's license pursuant to 10 CFR Part 55 when the license should have been modified to note the additional restriction that the senior reactor operator was required to take

medication as prescribed to maintain his qualification.

This is a Severity Level III problem (Supplement VII).

This violation closes both AV 2009008-01 and 2009008-02.

Inspection Report# : [2009009](#) (pdf)

Significance:  Apr 01, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

USE OF NON-QUALITY DOCUMENTS IN THE ABSENCE OF APPROVED PROCEDURES TO MODIFY THE NORMAL OPERATION OF IRM 11 AND IRM 18.

The inspectors identified a finding of very low significance and NCV of 10 CFR 50, Appendix B, Criterion V, for the licensee approving the use of non-quality documents in the absence of approved procedures to modify the normal operation of intermediate range monitor (IRM) 11 and IRM 18. Implementation of this guidance would have resulted in a condition that would not have been in compliance with Technical Specifications. Once identified, the licensee took immediate corrective actions to correct the situation and entered the issue into their corrective action program. The inspectors determined that the performance deficiency affected the cross cutting area of Human Performance, having decision making components, and involving aspects associated with using conservative assumptions in decision making and adopting requirements to demonstrate that proposed actions are safe in order to proceed, rather than a requirement to demonstrate that it is unsafe in order to disapprove actions. [H.1(b)]

The inspectors determined that the finding was more than minor because it impacted the Reactor Safety Mitigating System Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using IIMC 0609, Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At-Power Situations," using the Phase 1 Worksheet for the Mitigating Systems Cornerstone. After answering 'No' to all five questions in the Mitigating Systems Cornerstone column of Table 4a, "Characterization Worksheet for Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones," the inspectors concluded that the finding was of very low safety significance.

Inspection Report# : [2009002](#) (pdf)

Significance:  Apr 01, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO ADEQUATELY EVALUATE TEMPORARY CHANGES TO RCIC SURVEILLANCE PROCEDURES PRIOR TO IMPLEMENTATION.

A finding of very low safety significance and NCV of 10 CFR 50, Appendix B, Criterion V, was self revealed when the performance of an inadequately prepared temporary procedure change resulted in the inadvertent repositioning of a reactor core isolation cooling (RCIC) containment isolation valve during the system restoration section of a RCIC surveillance test. The licensee took immediate corrective actions to identify the cause of the inadvertent valve actuation and to restore the valve to its proper position. The licensee entered this issue into their corrective action program. The inspectors determined that the performance deficiency affected the cross cutting area of Human Performance, having work practices components, and involving aspects associated with appropriately coordinating work activities by incorporating actions to ensure that supervisory and management oversight of work activities is sufficient to support nuclear safety. [H.4(c)]

The inspectors determined that the failure to adequately evaluate the impact of making temporary changes to existing plant procedures used to conduct Technical Specification surveillance testing was a performance deficiency warranting significance evaluation in accordance with IMC 0612, Appendix B, "Issue Disposition Screening." The inspectors determined that the finding was more than minor because, if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern. The inspectors evaluated the finding using IMC 0609, Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At-Power Situations," using the Phase 1 Worksheet for the Mitigating Systems Cornerstone. After answering 'No' to all five questions in the Mitigating Systems Cornerstone column of Table 4a, "Characterization Worksheet for Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones," the inspectors concluded that the finding was of very low safety significance.

Barrier Integrity

Significance:  Dec 31, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

INADEQUATE MAINTENANCE PROCEDURE FOR 'A' SGBT SYSTEM.

A finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed for the licensee's failure to include acceptance criteria appropriate to the circumstances for a preventive maintenance procedure for the 'A' standby gas treatment (SBGT) subsystem. Due to the lack of a specific caution to avoid over-tightening of bolts for installation of a blocking device on the 'A' SBGT subsystem suction valve (AO-2945), the valve failed to open during return-to-service testing on September 29, 2009. Failure of AO-2945 to open resulted in an inadvertent initiation of the 'B' SBGT subsystem due to a low flow condition. The licensee took immediate corrective actions and entered the issue into their corrective action program. In order to re-perform return to-service testing of the 'A' SBGT subsystem after the AO 2945 issue was resolved, the 'B' SBGT subsystem had to be shutdown, requiring entry into limiting condition for operation (LCO) 3.0.3 due to the inoperability of both SBGT subsystems. The inspectors determined that the performance deficiency affected the cross-cutting area of Problem Identification and Resolution, having corrective action program components, and involving aspects associated with identifying issues completely and accurately commensurate with their safety significance. [P.1(a)]

The inspectors determined that the issue was a performance deficiency because it was the result of the failure to meet a requirement, and the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. The inspectors determined that the performance deficiency was more than minor and a finding because it involved the procedure quality attribute of the Barrier Integrity Cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings" to this finding. Under Column 4 of the Table 4a worksheet, the inspectors answered "Yes" to Question 1 because the finding only represented a degradation of the radiological barrier function provided by the SBGT system. Therefore, the finding was considered to be of very low safety significance.

Inspection Report# : [2009005](#) (pdf)

Significance: SL-IV Dec 31, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MAKE REQUIRED EIGHT HOUR EVENT REPORT PER 10 CFR 50.72(b)(3)(v).

A Severity Level IV non-cited violation (NCV) of 10 CFR 50.72(b)(3)(v)(C) was identified by the inspectors for the failure of the licensee to make an eight hour notification to the NRC for a condition that, at the time of discovery, could have prevented the fulfillment of the SBGT system safety function. The licensee entered this issue into their corrective action program as CAP 01210817. 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 inspectors determined that the issue was a performance deficiency because it was the result of the failure to meet a requirement, and the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. The inspectors determined that the performance deficiency was more than minor and a finding because the failure to report the condition that could have prevented the fulfillment of the SBGT system safety function affected the NRC's ability to perform its regulatory function. Because violations of 10 CFR 50.72 are considered to be violations that potentially impede or impact the regulatory process, they are dispositioned using the traditional enforcement process instead of the SDP. Per NRC Enforcement Policy, Supplement I, Example D.4, a failure to make a required Licensee Event Report is categorized as a Severity Level IV violation. The inspectors considered the failure to make a required 50.72 report to meet the intent of this example. Because the violation was not repetitive or willful, and it was entered into the licensee's corrective action program, this violation is being treated as a Severity Level IV

NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy.

Inspection Report# : [2009005](#) (pdf)

Significance:  Dec 04, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Calculation Errors Associated With the Pneumatic Pressure Requirements for the Inboard Main Steam Isolation Valves

The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to incorporate the actual physical configuration of the inboard main steam isolation valves (MSIVs) and the correct pneumatic system pressure drop into the pneumatic pressure requirement calculation for the inboard MSIVs. Specifically, the licensee failed to adjust the actuator moving part weight to reflect that the actuator was offset by 45 degrees instead of being mounted vertically and to correctly compute the system pressure drop. This finding was entered into the licensee's corrective action program and a preliminary calculation performed by the licensee concluded that the valves were operable.

The finding was more than minor because it was associated with the Barrier Integrity cornerstone attribute of structures, systems, components and barrier performance, and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. This finding is of very low safety significance (Green) because there was no actual barrier degradation. The inspectors did not identify a cross-cutting aspect associated with this finding because this was a legacy design issue and therefore was not reflective of current performance.

Inspection Report# : [2009007](#) (pdf)

Significance:  Sep 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO APPROPRIATELY IMPLEMENT TS 3.6.4.3.

The inspectors identified a finding of very low significance and NCV of Technical Specification (TS) 3.6.4.3.B for the licensee not entering the associated limiting condition for operation (LCO) when presented with information that the 'A' standby gas treatment (SBGT) system had not met all necessary acceptance criteria to pass a surveillance test required by TSs. Specifically, the time interval between the date of the failed test and the date when 'A' SBGT was declared inoperable exceeded the required LCO and specific action time of TS 3.6.4.3.A (one standby gas subsystem inoperable). The licensee entered this issue into their corrective action program. The inspectors determined that the performance deficiency affected the cross cutting area of Human Performance, having Decision Making components, and involving aspects associated with using conservative assumptions in decision making.

Inspection Report# : [2009004](#) (pdf)

Emergency Preparedness

Occupational Radiation Safety

Significance:  Jun 30, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO COMPLY WITH TECHNICAL SPECIFICATION AND RWP REQUIREMENTS DURING WORK IN A LOCKED HIGH RADIATION AREA.

A self-revealed finding of very low safety significance and an associated non-cited violation (NCV) of Technical

Specification 5.7.1.b was identified for the failure to comply with the requirements of the radiation work permit during ultrasonic testing preparations in the condenser hot side, an area posted as a locked high radiation area, on January 2, 2009. Specifically, a mechanical maintenance worker was directed by the outage control center staff to leave his assigned work area and to investigate a leak near the 'D' moisture separator. The worker was briefed on the high radiation area conditions at the ultrasonic testing preparation area; however, the individual was not briefed on the radiological conditions along his path to the 'D' moisture separator. As a result, the worker encountered radiation levels greater than those anticipated and received a dose rate alarm on his electronic dosimeter. The licensee's corrective actions included counseling of the involved workers and conducting a stand-down with the operations department to reinforce radiological requirements and communication expectations. A radiation protection liaison was also assigned to the outage control center for the remainder of the down-power to ensure that work assignments were coordinated with the appropriate supervisor, rather than interfacing directly with the worker. The licensee had completed an apparent cause evaluation to formulate additional actions to prevent recurrence.

The finding was more than minor because it impacted the program and process attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation; in that, access into high radiation areas whose radiological conditions were unknown placed the worker at risk for unnecessary radiation exposure. The finding was determined to be of very low safety significance because it was not an as-low-as-is-reasonably-achievable (ALARA) planning issue; there was no overexposure or substantial potential for an overexposure; and the licensee's ability to assess worker dose was not compromised. The finding involved a cross-cutting aspect in the area of human performance related to work practices; in that, radiation work permit compliance for access into 'D' moisture separator areas was not effectively communicated to the worker, and the worker failed to follow the radiation work permit. [H.4.b]

Inspection Report# : [2009003](#) (*pdf*)

Public Radiation Safety

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 : March 01, 2010