Monticello
2Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Aug 14, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO FOLLOW ADMINISTRATIVE WORK PROCEDURES RESULTS IN TRANSIENT HIGH RADIATION CONDITION.
A finding of very low safety significance was identified by the inspectors for a violation of Technical Specifications when operators failed to follow administrative procedures which require that operators notify radiation protection and chemistry personnel prior to a system alignment change that could affect exposure rates. A worker received an electronic dose rate alarm when a transient high radiation area was created while restoring the reactor core isolation cooling system after performing surveillance testing. The primary cause of this finding was related to the cross-cutting area of Human Performance. No workers exceeded their dose limits during the event. The licensee has instituted corrective actions including procedural revisions and personnel training.

The issue was more than minor because the operator's failure to anticipate plant changes prior to operating equipment could reasonably be viewed as a precursor to a significant event such as an overexposure to plant personnel. The issue was of very low safety significance because the finding did not contribute to the likelihood of a primary or secondary system loss of coolant accident initiator; the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available; and the finding did not increase the likelihood of a fire or internal or external flooding. The issue was a Non-Cited Violation of Technical Specification 6.5.A, which requires that written procedures be implemented for control of radioactivity for limiting personnel exposure.
Inspection Report# : 2004004*(pdf)*

Mitigating Systems

Significance: G Apr 02, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
INADVERTENT ENGINEERRED SAFETY SYSTEM ACTUATIONS DURING TESTING.
A finding of very low safety significance and Non-Cited Violation (NCV) was self-revealed when, on April 2, 2005, with the reactor shutdown during a refueling outage, performance of an inadequately written and reviewed post-maintenance test (PMT) resulted in a temporary loss of electrical bus 16 and actuation of several engineered safety features. The primary cause of this finding was related to the cross-cutting area of Human Performance. Corrective actions included restoring the bus and increasing technical and management reviews of PMTs. In addition, the licensee was in the process of revising the PMT development process to strengthen the levels of review in a graded approach.

The event was more than minor because it involved 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. During the time period that bus 16 was lost, one train of mitigating system equipment was not available. The finding was determined to be of very low safety significance by comparing it with the results of a Phase 3 SDP for a similar earlier event. Since, in this case, shutdown cooling was not actually lost and other plant conditions were similar to the previous event, the significance was no more than for the previous event which had been categorized as of very low safety significance. This was an NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for a PMT procedure that was not appropriate for the circumstances.
Inspection Report# : 2005003*(pdf)*

Significance: SL-IV Apr 02, 2005
Identified By: NRC
Item Type: VIO Violation
FAILURE TO REPORT INADVERTENT ENGINEERED SAFETY SYSTEM ACTUATIONS DURING TESTING.
The inspectors identified a Severity Level IV violation when the licensee failed to make a notification, within 8 hours, to the NRC Operations Center, in accordance with 10 CFR 50.72(b)(3)(iv)(A), for an event involving loss of bus 16 and actuation of engineered safety features on April 2, 2005. The licensee did not restore compliance or take any corrective actions.

Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. The violation of 10 CFR 50.72 is categorized in accordance with the NRC Enforcement Policy at Severity Level IV. Since the licensee failed to

place the violation into a corrective action program to address recurrence, the violation was cited.
Inspection Report# : 2005003*(pdf)*

Significance: G Mar 16, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO CHECK THE ILLUMINATION LEVELS OF THE BATTERY POWERED LIGHT BEFORE OR AFTER THE VT-3 EXAMINATION OF AN RHR HEAT EXCHANGER SUPPORT.
The inspector identified a finding of very low safety significance involving a failure to follow a procedure, in that the adequacy of illumination was not verified by an examiner for a visual exam being performed on a residual heat removal (RHR) heat exchanger support.

This finding was greater than minor because the issue involved procedural errors being performed by more than one examiner, involved more than one type of examination, and extended to other systems and components. Specifically, the licensee's subsequent extent of condition (EOC) evaluation (Condition Evaluation CE012073) determined that two examiners had performed visual examinations and system pressure tests without the use of illumination checks as required by procedure and American Society of Mechanical Engineers (ASME) Code. This resulted in numerous inadequate examinations being performed, including those which involved mitigating systems (MS) and primary containment (PC). As a result of the EOC evaluation, the licensee was required to re-perform approximately 60 exams/tests (VT-1, VT-3, pressure tests, or other periodic tests). Because the examinations were re-performed (or relief requested to allow acceptance of several non-repeatable tests) to demonstrate code compliance without revealing any degradation, this issue was considered a finding of very low safety significance. This finding was a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, which required activities to be accomplished in accordance with procedures and 10 CFR 50.55a(g)4, which requires, in part, that components (including supports) must meet the requirements set forth in the ASME Code Section XI.
Inspection Report# : 2005002*(pdf)*

Significance: G Mar 08, 2005
Identified By: Self Disclosing
Item Type: FIN Finding
LOSS OF SHUTDOWN COOLING DUE TO #12 RESIDUAL HEAT REMOVAL PUMP TRIP.
A finding of very low safety significance was self-revealed on March 8, 2005, when residual heat removal (RHR) flow to the shutdown reactor was lost for approximately 13 minutes due to an inadequately written and reviewed isolation procedure for outage work. The primary cause of this finding was related to the cross-cutting area of Human Performance. Corrective actions included immediate restoration of shutdown cooling, placing all outage isolations on hold for additional reviews and impact assessments, an operations department stand down, and increased management observations of equipment isolations. Additional corrective actions to revise work control and outage processes were in progress and being tracked through the corrective action program.

The inspectors evaluated the finding using the IMC 0609 Appendix G, "Shutdown Significance Determination Process (SDP)." Using a Phase 3 SDP, the NRC determined that the finding was of very low safety significance because multiple systems were available for manual injection and recovery of RHR was uncomplicated. Because procedures required by Technical Specifications for initiating isolations were adequate and were followed, albeit inadequately, this finding was not considered a violation of NRC requirements.
Inspection Report# : 2005003*(pdf)*

Significance: G Nov 05, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Adequate Guidance to Ensure the Operability of the HPCI System When Aligned with Suction from the Torus
The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," in that, the design requirement to ensure the high pressure coolant injection (HPCI) pump discharge piping was kept full to maintain system operability was not adequately translated into procedures. Specifically, the effect of a known void in the HPCI discharge piping was not evaluated for its impact with the HPCI pump aligned with suction from the torus in the standby mode. As such, adequate acceptance criteria was not provided to ensure the operability of the HPCI system during this mode of operation. The licensee's corrective actions included, as an interim action, placing a Temporary Information Tag on the control room switch for the HPCI suction valve from the condensate storage tank that states if HPCI suction is swapped to the torus, to evaluate HPCI for operability.

This finding was more than minor because it was associated with the attributes of configuration control and procedural quality, which affected the mitigating systems cornerstone objective of ensuring the availability and reliability of the HPCI system to respond to initiating events to prevent undesirable consequences. The finding is of very low safety significance based on the results of the Significance Determination Process (SDP) Phase 1 screening worksheet.
Inspection Report# : 2004007*(pdf)*

Significance: G Nov 05, 2004
Identified By: NRC

Item Type: NCV NonCited Violation
Failure to Provide Adequate Procedural Guidance to Ensure the Continued Operation of the HPCI System During an ATWS
The inspectors identified a Non-Cited Violation of Technical Specification 6.5.A.2, "Procedures," associated with an inadequate procedure to return the suction of the high pressure coolant injection (HPCI) pump from the torus to the condensate storage tank during an anticipated transient without scram (ATWS) condition to ensure the self-cooled HPCI pump lube oil and control oil temperatures would remain within limits to prevent pump damage and ensure continued operation. The licensee's corrective actions included a procedural change to allow continued operation of the HPCI system during an ATWS event.

This finding was more than minor because it was associated with the attribute of procedure quality, which affected the mitigating systems cornerstone objective of ensuring the availability and reliability of the HPCI system to respond to initiating events to prevent undesirable consequences. The finding is of very low safety significance based on the results of the Significance Determination Process (SDP) Phase 1 screening worksheet.
Inspection Report# : 2004007*(pdf)*

Significance: G Nov 05, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate and Implement the Replacement of Electrolytic Capacitors
The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," associated with not promptly identifying and evaluating a condition adverse to quality. Specifically, the licensee did not replace aging electrolytic capacitors in the six Division I and Division II, 250 Vdc battery chargers, in a timely manner, allowing them to go beyond the service life specified by the vendor and the plant's preventative maintenance (PM) program. In addition, routine PM activities for all six 250 Vdc battery chargers have not been performed since February 2000. The licensee's corrective actions included: performing an operability evaluation; placing a purchase order for the capacitors; and initiating plans to replace the capacitors on an accelerated schedule.

The finding was more than minor because it was associated with the attribute of equipment performance, which affected the mitigating systems cornerstone objective of ensuring the availability and reliability of the 250 Vdc system to respond to initiating events to prevent undesirable consequences. The finding is of very low safety significance based on the results of the Significance Determination Process (SDP) Phase 1 screening worksheet.
Inspection Report# : 2004007*(pdf)*

Significance: G Nov 05, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Design Emergency Diesel Generator Exhaust Silencers for Tornado Wind Loading
The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," regarding the emergency diesel generators ability to operate following a design basis tornado as portions of the exhaust and intake air piping located on the emergency diesel generator building roof were not adequately supported to withstand tornado wind forces. As part of the licensee's corrective actions, the diesel exhaust piping was modified so that the piping design basis was met.

This finding was more than minor because it was associated with the attribute of design control, which affected the mitigating systems cornerstone objective of ensuring the capability of the emergency diesel generators to respond to natural phenomena to prevent undesirable consequences. The finding was of very low safety significance based on the results of an Significance Determination Process (SDP) Phase 3 analysis
Inspection Report# : 2004007*(pdf)*

Significance: G Aug 03, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO FULLY EVALUATE THE AVAILABILITY OF A VENT PATH CREDITED IN THE OPERABILITY EVALUATION FOR A DEGRADED HELB ISSUE.
A finding of very low safety significance and Non-Cited Violation (NCV) was identified on August 3, 2004, by the inspectors when the engineering and operations groups failed to fully evaluate the availability of a vent path credited in the operability evaluation for a degraded high energy line break (HELB) issue. Specifically, the inspectors identified that the ventilation damper credited as a vent path for a feedwater HELB failed in the shut position on a loss of service air, isolating the vent path. The primary cause of this finding was related to the cross-cutting area of Human Performance. The licensee entered this into their corrective action program (CAP) and completed plant modifications to install HELB dampers to isolate the turbine building mild environments from the turbine building harsh environments.

The inspectors determined that the issue was more than minor because it directly impacted the equipment performance attribute for availability and reliability of the mitigating systems. The finding was of very low safety significance because it was considered a design deficiency which did not result in loss of function per Generic Letter 91-18, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions," Revision 1. This issue was an Non-Cited Violation (NCV) of 10 CFR 50, Appendix B, Criteria III, "Design Control."

Inspection Report# : 2005003*(pdf)*

Barrier Integrity

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO COMPLETE REQUIRED PROCEDURE STEPS LEADS TO INOPERABLE PRIMARY CONTAINMENT ISOLATION VALVE.
A finding of very low safety significance was self-revealed for a violation of Technical Specifications for maintenance personnel failing to perform maintenance in accordance with written procedures associated with air-operated valve AO-2381, the drywell purge inboard isolation valve. In February 2005, AO-2381 was declared inoperable after it was determined that the valve's as-found seating force exceeded that allowed by calculational limits and the valve may not be able to close under a design basis accident condition. During a review of the maintenance history for AO-2381 it was discovered that, in February 2000, maintenance workers failed to complete a step in the procedure used to replace the T-ring seal of this valve. The cause of the failure of this valve was due to interference of the valve disc with the T-ring seat. The primary cause of this finding was related to the cross-cutting area of Human Performance. The licensee replaced the T-ring seat during the March 2005 refuel outage and the valve was declared operable after post-maintenance testing.

The issue affected the Barrier Integrity cornerstone attribute of maintaining the functionality of containment. Specifically, this issue affected the containment isolation system, structure, and component (SSC) reliability/availability element of the SSC and Barrier Performance attribute and, therefore, was determined to be more than minor. This finding was of very low safety significance because there was no degradation of the radiological barrier function provided for the control room, auxiliary building, spent fuel pool, or standby gas treatment system; no degradation of the smoke or toxic gas barrier function of the control room; and the finding did not represent an actual open pathway in the physical integrity of the reactor containment or involve an actual reduction in defense-in-depth for the atmospheric pressure control or hydrogen control functions of the primary containment. The issue was a Non-Cited Violation of Technical Specification 6.5.A, which requires that maintenance that can affect the performance of safety-related equipment should be properly performed in accordance with written procedures, documented instructions, or drawings appropriate for the circumstances.
Inspection Report# : 2005002*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Feb 18, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INEFFECTIVE CORRECTIVE ACTION FOR TRANSIENT HIGH RADIATION CONDITION.
finding of very low safety significance was identified by the inspectors for a violation of Technical Specification administrative procedure adherence requirements. Operations personnel failed to notify radiation protection and chemistry personnel, as required by administrative procedures, prior to a system alignment change of the reactor core isolation cooling (RCIC) system that could affect exposure rates. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution in that the licensee failed to take effective corrective actions with respect to previously identified issues concerning transient high radiation areas. Specifically, the licensee had previously experienced a transient high radiation incident involving a system alignment change of the RCIC (Reactor Core Isolation Cooling) system. This prior incident was the subject of a Non-Cited Violation. Despite this prior incident, the licensee failed to make adequate revisions of their operating procedures to prevent recurrence. The licensee has initiated corrective actions which include appropriate procedure revisions.

The issue was more than minor because the failure to include appropriate guidance in surveillance procedures could become a more safety significant concern in that it could result in unnecessary dose in individuals. The finding was of very low safety significance because the three-year rolling average collective dose for the Monticello Nuclear Generating Plant was less than 240 person-rem per unit. The issue was an NCV of Technical Specification 6.5.A.1 which required that procedures be implemented for control of radioactivity for limiting personnel exposure.
Inspection Report# : 2005006*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : August 24, 2005