Monticello
1Q/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)*

Significance: G Apr 27, 2004
Identified By: NRC
Item Type: FIN Finding
FAILURE TO CONTROL MATERIALS IN THE SUBYARD WHICH COULD BECOME POTENTIAL MISSILES.
A finding of very low safety significance was identified by the inspectors associated with the failure to control or remove materials in the switchyard and adjacent to the 1AR transformer. These materials could become missile hazards during adverse weather conditions, such as tornados or severe thunderstorms, increasing the likelihood of an initiating event. The primary cause of this finding was related to the cross-cutting area of Human Performance. The licensee has included this finding in their corrective action program as CAP 033894. Proposed corrective actions included a review of related condition reports and a review of industry good practices related to housekeeping. The intent of the reviews would be to ensure that appropriate precautions are established that would minimize the risk of equipment damage or transients as a result of inclement weather.

This finding was more than minor since the finding could be reasonably viewed as a precursor to a significant event, such as a loss of Technical Specification-required power supplies or a loss of off-site power caused by missile damage to auxiliary power system or switchyard components. The finding 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. No violation of NRC requirements occurred.
Inspection Report# : 2004003*(pdf)*

Mitigating Systems

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 Jun 02, 2004
Identified By: NRC
Item Type: NCV NonCited Violation

FAILURE TO PERFORM A FUNCTIONAL TEST TO VERIFY OPERABILITY PRIOR TO RETURNING AN APRM TO SERVICE.
A finding of very low safety significance was identified by the inspectors for a violation of Technical Specifications (TS) for failing to follow Operations Manual procedures, which require that a functional test be performed to verify operability prior to returning an average power range monitor (APRM) to service. After performing maintenance and returning APRM 1 to service, the shift manager subsequently recognized that APRM 1 had not completed its post maintenance test (PMT) and ordered APRM 1 to be removed from service. The primary cause of this finding was related to the cross-cutting area of Human Performance. The licensee has instituted corrective actions including a formal root cause evaluation to assess this issue.

The issue was more than minor because it directly impacts the configuration control attribute for the mitigating systems cornerstone. This finding was of very low safety significance because there was no design deficiency; no actual loss of safety function of the RPS; no single train loss of safety function for greater than the TS allowed outage time; and no risk due to external events. The issue was a Non-Cited Violation of TS 6.5.A, which requires that written procedures be implemented for operation of nuclear instruments.
Inspection Report# : 2004003*(pdf)*

Significance: G Apr 28, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO TAKE PROMPT AND ADEQUATE CORRECTIVE ACTIONS TO ADEQUATELY ANALYZE THE 11 AND 12 EDG ROOM VENTILATION TO DEMONSTRATE EDG OPERABILITY.
A finding of very low safety significance was identified by the inspectors for a violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action. This issue involved the failure to take prompt and adequate corrective actions in response to operability concerns with the 11 and 12 emergency diesel generator (EDG) room ventilation. Subsequent testing and analysis has demonstrated 11 and 12 EDG room ventilation as being adequate for an outside air temperature of 105 degrees Fahrenheit (degrees) under normal operation and 107 degrees with operations personnel taking compensatory actions.

This issue was more than minor because it directly impacts the equipment performance attribute for the mitigating systems cornerstone. This finding was of very low safety significance because there was no design deficiency; no actual loss of safety function of the 11 and 12 EDG room ventilation system; no single train loss of safety function for greater than the Technical Specification (TS) allowed outage time; and no risk due to external events. A Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action" was identified for failure of the licensee to take prompt actions to correct a condition adverse to quality.
Inspection Report# : 2004003*(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)*

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)*

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)*

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO POST AND BARRICADE A HIGH RADIATION AREA.
A finding of very low safety significance was self-revealed when a radiation protection technician (RPT) transferred radioactive material, with a dose rate of approximately 300 millirem/hour at one foot, from the transversing incore probe (TIP) cubicle to the refuel floor and did not assure the material was placed in the posted high radiation area. The primary cause of this finding was related to the cross-cutting area of Human Performance. The RPT did not perform adequate self-checking to ensure that radioactive material was properly posted and barricaded.

The finding is more than minor because it could reasonably be viewed as a precursor to a more significant event and is associated with one of the cornerstone attributes, specifically occupational radiation safety. The occurrence involves an individual worker's potentially unplanned dose resulting from conditions contrary to the Technical Specifications, which could have been significantly greater as a result of a single minor reasonable alteration of the circumstances. The finding was of very low safety significance because the potential exposure time was short and

the matter did not result in unintended personal dose.
Inspection Report# : 2004003*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

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