Monticello
4Q/2004 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)*

Significance: G Mar 20, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO FOLLOW FIRE PROTECTION PROGRAM PROCEDURES WHICH REQUIRE THAT CHANGES MADE TO THE FIRE PROTECTION PROGRAM BE EVALUATED FOR IMPACTS TO SAFE-SHUTDOWN CAPABILITIES.
A finding of very low safety significance was identified by the inspectors for a violation of Technical Specification for failing to follow Fire Protection Program procedures which required that changes made to the Fire Protection Program be evaluated for impacts to safe-shutdown capabilities. The Engineering Department failed to evaluate the replacement of two dry chemical fire extinguishers with two pressurized water extinguishers in the intake structure area. The licensee has instituted corrective actions including a formal root cause evaluation to assess this issue.

This issue was more than minor because an unsuppressed electrical or oil fire could affect both trains of emergency service water. The issue was of very low safety significance because the 20-foot separation between two trains did not contain any combustibles and because the

automatic fire suppression system was not affected by the finding. The issue was a Non-Cited Violation of Technical Specification 6.5.A, which requires written procedures covering the Fire Protection Program.
Inspection Report# : 2004002*(pdf)*

Significance: G Mar 20, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO TAKE PROMPT AND ADEQUATE CORRECTIVE ACTIONS TO CORRECT PRE-FIRE STRATEGIES.
Three (3) examples of a finding of very low safety significance were identified by the inspectors for a violation of 10 CFR 50, Appendix B, Corrective Action requirements for failing to take prompt and adequate corrective actions to correct pre-fire strategies. The licensee has instituted corrective actions including a formal root cause evaluation to assess this issue.

This issue was more than minor because pre-fire strategies are used by the fire brigade to identify additional equipment needed and to determine the fire hazards in the fire zones. Failure to have updated and accurate pre-fire strategies could impair the fire brigade's ability to promptly and properly respond in the event of a fire. The issue was determined to be of very low safety significance as a result of an SDP evaluation which provided credit for the robustness of the fire protection methodology and the automatic fire suppression system for the fire zone. 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 conditions adverse to quality.
Inspection Report# : 2004002*(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)*

Significance: G Mar 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO MAINTAIN THE QUALIFICATION OF SAFETY-RELATED SWITCHGEAR WHEN NON-SAFETY RELATED ALARM MODULES WERE INSTALLED ON THE DIVISION I AND DIVISION II 250 VDC BUSES WITHOUT AN APPROPRIATE INTERFACE
A finding of very low safety significance was identified by the Engineering Department, but because the finding required a Phase 2 significance determination, the finding was treated as an NRC-identified finding. The finding was associated with the failure to maintain the qualification of switchgear when non-safety related alarm modules were installed on the Division I and Division II 250 VDC buses without an appropriate interface. The alarm re-flash units were installed without safety-related fuses as the interface between the safety and non-safety components. The licensee instituted corrective actions to install an appropriate interface and review certain past modifications for similarities.

The issue was more than minor because it directly impacted the design control attributes for both the Mitigating Systems and Barrier Integrity objectives. The results of the SDP process found the issue to be Green after consideration of the robust design of the modification and because the fuses had in the past blown to protect the source and adequately isolated the non-safety equipment from the bus. A Non-Cited Violation of 10 CFR 50, Appendix B, Criterion III, "Design Control" was issued for failure to maintain the safety qualification of safety-related switchgear.
Inspection Report# : 2004002*(pdf)*

Significance: G Feb 18, 2004
Identified By: NRC
Item Type: FIN Finding
FAILURE TO IDENTIFY AND CORRECT A DAMAGED 13 DG OUTPUT BREAKER RESULTS IN INCREASED PLANT RISK.
A finding of very low safety significance with no associated violation was identified by the NRC inspectors associated with the non-safeguards 13 diesel generator (DG) output breaker. The finding was associated with the failure of the Electrical Maintenance Department to identify and correct a damaged output breaker, resulting in increased plant risk. During a monthly surveillance test in January 2004 the 13 DG output breaker failed to shut. An investigation was performed and no apparent cause of the breaker's failure to shut was identified prior to returning the 13 DG to service. During the February surveillance test, the 13 DG output breaker again failed to shut for monthly testing. Further investigation identified a bent linkage in the breaker, which was the cause of the breaker's failure to shut. The Electrical Maintenance Department repaired the bent linkage and returned the 13 DG to service.

Since the 13 DG has a cumulative impact over time on the plant's safety due to its contribution to core damage frequency (CDF), the inspectors concluded that the finding was more than minor because this finding would become a more significant safety concern if left uncorrected. This finding was of very low safety significance because there was no design deficiency, no actual loss of safety function, no single train loss of safety function for greater than the Technical Specification allowed outage time, and no risk due to external events.
Inspection Report# : 2004002*(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

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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