

## Monticello

# 1Q/2003 Plant Inspection Findings

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### Initiating Events

**Significance:**  Feb 02, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

#### **FAILURE TO APPLY INDUSTRY OPERATING EXPERIENCE TO MAINTENANCE PRACTICES FOR ELECTRICAL COMPOUNDS IN MAINTENANCE RULE SYSTEMS.**

A finding of very low safety significance was identified by the NRC inspectors. The finding was associated with a reactor power transient to less than 65 percent reactor power that was caused by a steam jet air ejector (SJAE) pressure controller failure, subsequent isolation of the SJAE, and the associated impact on the availability of the condensate and feed system. The finding was associated with a failure to incorporate industry operating experience into preventative maintenance activities that would have prevented a maintenance rule functional failure (MRFF) of the main condenser system. The inspectors determined the finding to be more than minor because the event caused an actual upset in plant stability and operation and resulted in a plant transient, thus directly affecting the objective for the initiating events cornerstone. The results of a Phase 1 and a Phase 2 SDP indicated that the issue was of very low safety significance and within the licensee response band. A Non-Cited Violation (NCV) of 10 CFR 50.65(a)(3) was issued for failure to incorporate industry operating experience into preventative maintenance activities that would have prevented a maintenance rule functional failure of the main condenser system.

Inspection Report# : [2003003\(pdf\)](#)

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### Mitigating Systems

**Significance:**  Mar 11, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

#### **INADEQUATE PROCEDURAL CONTROLS AND FAILURE TO FOLLOW WORK INSTRUCTIONS RESULTS IN FOREIGN MATERIAL INGESTION BY RHRSW PUMPS.**

A finding of very low safety significance was identified by the NRC inspectors associated with inadequate procedural controls and a failure to follow written work instructions for a maintenance activity performed on No. 11 traveling screen. This maintenance activity allowed a large quantity of cinders to be swept into the intake of an operating pump (Train A) of the residual heat removal service water (RHRSW) system. The inspectors determined the finding to be more than minor because it had a direct impact on the mitigating systems objective of the reactor safety cornerstone. Specifically, the cinders were swept into the intake of safety-related pumps, which had the potential to adversely effect the reliability of Train 'A' of the RHRSW system. Because the presence of the cinders did not result in the actual loss of a safety function for any system, the finding was determined through a Phase 1 SDP to be of very low safety significance and within the licensee response band. A Non-Cited Violation (NCV) of Technical Specification 6.5.A.1 was issued. Technical Specification 6.5.A.1 stated that maintenance that can affect the performance of safety-related equipment be properly pre-planned and performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances.

Inspection Report# : [2003003\(pdf\)](#)

**Significance:**  Feb 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Setting of Voltage-Restrained Overcurrent Relays on Emergency Diesel Generators (10 CFR Part 50, Appendix B, Criterion XVI)**

The inspection team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, regarding the setting of the voltage-restrained overcurrent relays on the emergency diesel generators. A similar issue was identified in 1987, the identical issue in 1990, and corrective actions had not been taken as of 2003. The finding was greater than minor because the actuation of the protective relay could prevent a diesel generator from fulfilling its mitigating system cornerstone objective of responding to initiating events and preventing undesirable consequences. The finding was of low safety significance because it did not represent an actual loss of a diesel generator. (Section 1R21.1.b.1).

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Feb 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**EDG Building Ventilation System Design Basis Not Correct in USAR and No Calcs or Tests to Support: 2 violations, 10 CFR Part 50 Appendix B, Criterion III and 10 CFR 50.71(e)**

The inspection team identified two Non-Cited Violations associated with the emergency diesel generator building ventilation system. The first violation was against 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for not having calculations, tests or drawings which captured the design basis of the system. The second violation was against 10 CFR 50.71(e), "Final Safety Analysis Report Updates" for information added to the updated safety analysis report in 1989 which misreported the amount of time available for the operators to take action following a ventilation system failure. The finding was greater than minor because (1) diesel room temperatures were not available in the control room; (2) during actual diesel runs, the operators only entered the rooms approximately once an hour, and did not check the room temperature; and (3) the alarm response procedure for loss of the supply fan contained a number of steps prior to having someone go to the diesel generator room. All these factors contributed to the likelihood that a diesel generator ventilation system failure would not be detected and corrected by the licensee prior to diesel generator being adversely affected. The finding was of low safety significance because, at the time of the inspection, the outside temperatures were extremely cold, and heaters were being used to maintain the diesel room temperatures and, for the one occasion in the past where high room temperatures were observed, the emergency diesel generators were not called upon and the ventilation system was not actually lost. Therefore, the finding did not represent an actual loss of a safety function. (Section 1R21.1.b.2)

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Feb 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Design Bases for Emergency Diesel Generator Jacket Water System Not Correctly Translated into Calculations, Procedures, or Drawings (10 CFR Part 50, Appendix B, Criterion III)**

The inspection team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control" due to the design bases for the emergency diesel generator jacket water system not being correctly translated into calculations, procedures, or drawings. The finding was greater than minor because the calculation required multiple revisions which changed the outcome of the results and which necessitated changes to an alarm response procedure.

The finding was of low safety significance because it did not represent an actual loss of a safety function. (Section 1R21.2.b.1)

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Feb 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Improper Venting of the Diesel Generator Day Tank and the Diesel Generator Base Tank (10 CFR Part 50, Appendix B, Criterion III, 3 examples)**

The inspection team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," due the licensee modifying the venting on the diesel generator day tank and the diesel generator base tank and the modifications not being in accordance with National Fire Protection Association Code 30-1977 requirements. Three separate examples were identified The finding was greater than minor because the finding was associated with design control attributes which affected the objective of the mitigating systems cornerstone to ensure capability of the emergency diesel generator system to respond to initiating events and prevent undesirable consequences. The finding was of low safety significance because no credible fire scenario was identified and the safety functions of the diesel generator day and base tanks were not degraded to the point that they would have caused the emergency diesel generators to be inoperable.

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Feb 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Design Basis Technical Specification Requirement for Minimum Seven Day Supply Not Correctly Translated Into Specifications, Procedures, or Instructions (10 CFR Part 50, Appendix B, Criterion III)**

The inspection team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," due to there being no level instrument setpoint calculations for the emergency diesel generators' fuel oil storage tank level instrumentation. Specifically, the design basis technical specification requirement for a minimum seven day supply of 38,300 gallons of diesel fuel oil available in the fuel oil storage tank for one diesel generator at full load was not correctly translated into specifications, procedures, and instructions. The finding was greater than minor because the preliminary calculations performed showed an impact on the technical specification operability limit of the diesel fuel oil system and indicated that changes to the instrument calibration procedures might be necessary. The finding was of low safety significance because there was not an actual loss of diesel fuel oil below the design basis technical specification minimum of 38,300 gallons. (Section 1R21.2.b.3)

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Feb 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Unqualified AC Fuses in DC Applications**

The inspection team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action" that applied to Bussman FRN fuses installed in safety-related 125 Volt direct current panels. The unknown short circuit current interrupting rating of FRN fuses could have degraded the design basis capability of the affected safety related 125 Volt direct current panels. The finding was greater than minor because the failure of an FRN fuse could prevent fulfilling the mitigating system cornerstone objective of responding to initiating events to prevent undesirable consequences by decreasing the reliability and availability of the system. The finding was of low safety significance because it did not involve an actual loss of a component or system important to safety. (Section

1R21.3.b.1)

Inspection Report# : [2003002\(pdf\)](#)**Significance:**  Feb 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Loss of Required Record for Environmental Qualification of Diesel Generator Rooms (10 CFR 50.49(d))**

The inspection team identified a Non-Cited Violation of 10 CFR 50.49, "Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants," that applied to the emergency diesel generator rooms' normal radiation environment. Specifically, the inspectors identified that the licensee could not provide the source documentation used to support the emergency diesel generator rooms' normal environmental specification. The finding was greater than minor because it potentially affected the ability of a mitigating system to meet its design objective, had the diesel generator rooms truly been a harsh radiation environment. The finding was of low safety significance because it did not involve an actual loss of the diesel generators, due to the bounding environmental conditions for establishing qualification of safety-related equipment not being a harsh radiation environment. (Section 1R21.3.b.2)

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Feb 21, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**EQ-Part-B Document Incorrectly Identified Normal Temperature Range and Peak Accident Temperature for Various Plant Areas (10 CFR Part 50, Appendix B, Criterion III)**

The inspection team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," that applied to the licensee's environmental qualification (EQ) document EQ-Part-B. The EQ-Part-B document contained many errors, including incorrectly identifying the normal temperature range and peak accident temperature for various plant areas. The finding was greater than minor because the mitigating system cornerstone objective was affected in that the potential existed that the incorrect temperature values used in the design basis environmental qualification document for the emergency diesel generator rooms to provide the bounding environmental conditions for establishing qualification of safety-related equipment might result in the diesel generators failing to operate when called upon due to components not being qualified for the environment in which they were called upon to operate. The finding was of low safety significance because the inspectors did not identify any actual occurrences where the diesel generator rooms temperatures exceeded 120 degrees and, therefore, the finding did not represent an actual loss of a safety function. (Section 1R21.3.b.3)

Inspection Report# : [2003002\(pdf\)](#)**Significance:**  Jun 21, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Meet the Separation Criteria for Redundant Cabling and Equipment in Fire Zone 23A, Intake Structure Pump Room**

The inspectors identified a NCV of 10 CFR Part 50, Appendix R, Section III.G.2 associated with a failure to protect redundant trains of equipment and cabling in the intake structure area. Specifically, the inspectors identified the presence of intervening combustible between two trains of Emergency Service Water (ESW) system. The two trains were separated by more than 20 feet and the fire area contained detection and suppression capabilities. This finding was determined to be more than minor because it affected the mitigating system cornerstone objective. This finding was evaluated using the SDP and determined to be Green. Because the finding was of very low safety significance, and was captured in the licensee's corrective action system, this finding is being treated as a NCV consistent with Section

VI.A.1 of the NRC Enforcement Policy.

Inspection Report# : [2002011\(pdf\)](#)

**Significance:**  Jun 21, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Procedures C.4-b-8.5.A, "Plant Fire," C.4-C, "Shutdown Outside the Control Room," and Other Related Procedures Associated with Responding to a Plant Fire Were Not Appropriate to the Circumstances.**

The inspectors identified a NCV of 10 CFR Part 50, Appendix B, Criterion V associated with a failure to ensure that some operations procedures were appropriate to the circumstances. Specifically, the inspectors determined that some operations procedures did not clearly identify the minimum set of actions necessary to ensure a safe shutdown of the reactor, following a fire, and ensure that adequate emergency lighting and communications were available to support those operator actions. This finding was determined to be more than minor because it could reasonably be viewed as a precursor to a significant event where required operator actions may not be accomplished in a timely manner due to inadequate operations procedures, and a lack of emergency lights and radios. Using the IMC 0609, Appendix F, this finding is characterized as Green because it did not affect detection, manual suppression capability, automatic suppression capability, fire barriers, or 20-foot separation.

Inspection Report# : [2002011\(pdf\)](#)

**Significance:**  Jun 21, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Maintain Full Area Detector Coverage in Zones 23A, 14A, 13B, 19A, and 19B.**

The inspectors identified a NCV of 10 CFR 50.48 associated with inadequate fire detection capabilities in several fire areas. Specifically, the inspectors identified inadequate number and spacing of smoke detectors in two 4160-volt switchgear rooms and inadequate number and spacing of heat activated detectors in the reactor feed pump (RFP) area. This finding was determined to be more than minor because it could reasonably be viewed as a precursor to a significant event where a delay in fire detection in safety related switchgear and RFP areas could result in a more severe fire and render more equipment inoperable. In addition, the finding affected the mitigating system cornerstone objective in that the necessary number of detectors were needed to ensure the reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding did not affect the 3-hour fire barrier separating redundant safe shutdown functions (IMC 0609, Appendix F, Figure 4-5), this finding was characterized as Green.

Inspection Report# : [2002011\(pdf\)](#)

**Significance:**  Jun 21, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to maintain Complete Sprinkler Coverage in Fire Zones 13A and 13B.**

The inspectors identified a NCV of 10 CFR 50.48 associated with inadequate fire suppression capabilities in several fire zones. Specifically, the inspectors determined that the sprinkler systems in fire zones 13A and 13B did not provide complete coverage of the areas. This finding was determined to be more than minor because it can be reasonably viewed as a precursor to a significant event where an uncontrolled fire in these areas could spread and potentially cause damage to the redundant trains of safe shutdown equipment in other fire zones. Since the finding did not affect the 3-hour fire barrier separating redundant safe shutdown functions (IMC 0609, Appendix F, Figure 4-5), this finding is Green.

Inspection Report# : [2002011\(pdf\)](#)

 **Significance:** Jun 21, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Enter Conditions Adverse to Quality into the Corrective Action Program and to Correct Conditions Adverse to Quality.**

The inspectors identified a Green NCV of 10 CFR Part 50, Appendix B, Criterion XVI, associated with a failure to document conditions adverse to quality in the corrective action program and a failure to resolve several fire protection-related conditions adverse to quality entered into the corrective action program. Specifically, some findings, developed as a part of an internal self-assessment, were not entered into the corrective action program and other conditions adverse to quality, associated with transfer of fire protection requirements out of the Technical Specifications and inspection findings, were not corrected. This finding is more than minor because if left uncorrected, the finding would become a more significant safety concern. Failure to enter fire protection non-compliance items and failure to resolve the items entered into the corrective actions program could potentially affect the availability, reliability, and capability of fire protection safe shutdown equipment and response efforts. This finding is not suitable for SDP analysis. However, the inspectors determined that this finding was of very low significance (Green) because each associated performance deficiency, identified during this inspection, was of very low significance. Therefore, the finding was characterized as Green.

Inspection Report# : [2002011\(pdf\)](#)

**Significance:** SL-IV Jun 21, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Perform Written Safety Evaluations and Sumit a Summary to the NRC for Changes Made to the FPP, FHA, and SSA from 1984 to 2001.**

The inspectors identified a Severity Level IV NCV of 10 CFR 50.59 associated with a failure to control and maintain changes made to the fire protection program (FPP) since 1984. Because violations of 10 CFR 50.59 are considered to be violations that could potentially impede or impact the regulatory process, they are dispositioned using the traditional enforcement process instead of the SDP. Since the SDP is not designed to assess the significance of violations that could potentially impact or impede the regulatory process, the "results of a 10 CFR 50.59 violation" are assessed using the SDP and the severity level of the 10 CFR 50.59 violation is then based on this significance determination. In this case, the licensee's failure to control and evaluate changes to components of the FPP resulted in the implementation of the program in a manner different than approved by the NRC, as documented in relevant Safety Evaluation Reports (SERs). Examples of these differences are presented in other sections of this report. The inspectors concluded that the issue had a credible impact on safety because the licensee's failure to control and evaluate changes to the FPP could adversely affect the reliability, capability, and availability of safe shutdown capabilities, as discussed in the other sections of this report. However, based upon a review of the current plant configuration and an assessment of the impacts of the examples discussed in this report, the inspectors determined that the licensee's failure to properly control and evaluate changes to be of very low safety significance. Therefore, the issue was determined to be of very low safety significance, i.e., a Green finding.

Inspection Report# : [2002011\(pdf\)](#)

 **Significance:** May 04, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE DEBRIS CONTROL IN ECCS CORNER ROOMS CHALLENGES INTERNAL FLOODING ANALYSIS.**

Inspectors identified debris in the emergency core cooling system (ECCS) corner rooms which potentially could have had an adverse effect on installed flood protection equipment during an internal flooding event. The lack of adequate

debris control procedures and instructions was determined to be a Non-Cited Violation (NCV) of Criterion V, 10 CFR 50, Appendix B. The finding was determined to be of very low safety significance and within the licensee's response band due to the very low risk associated with the event that was identified during a case specific Phase 3 SDP.  
Inspection Report# : [2002004\(pdf\)](#)

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## Barrier Integrity

**Significance:**  Mar 06, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### **FAILURE TO PROMPTLY IDENTIFY AND CORRECT A PROBLEM WITH A CONTROL ROOM AIR CONDITIONING COMPRESSOR FOLLOWING REPEATED TRIPS ON LOW OIL PRESSURE.**

A finding of very low safety significance was identified by the NRC inspectors. The finding was associated with repeated repair activities associated with low oil pressure trips of a control room air conditioning compressor. A third occurrence of a trip on low oil pressure resulted in the licensee identifying and correcting a problem with the physical configuration between the compressor's oil separator and crankcase, which was discussed in a vendor's technical bulletin. The inspectors determined the finding to be more than minor because if left uncorrected it would become a more significant safety concern. Specifically, if left uncorrected the alignment problem between the oil separator and the crankcase would have had an adverse effect on the reliability of the control room ventilation (CRV) compressors and, therefore, the CRV systems' long-term performance. Because the problem with the compressor was related only to first attempt starts following periods of being in standby, and because no barrier functions were ever lost, the finding was determined through a Phase 1 SDP to be of very low safety significance and within the licensee response band. A Non-Cited Violation (NCV) of Criterion XVI of 10 CFR 50, Appendix B, was issued for failure to promptly identify and correct the problem with a control room air conditioning compressor following compressor low oil pressure trips on January 30 and February 11, 2003.

Inspection Report# : [2003003\(pdf\)](#)

**Significance:**  Feb 10, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### **INADEQUATE PROCEDURES AS REQUIRED ASSOCIATED WITH A BREACH OF PRIMARY CONTAINMENT WHILE PERFORMING A CALIBRATION OF TORUS LEVEL INSTRUMENTATION.**

A finding of very low safety significance was identified by the NRC inspectors associated with a breach of primary containment while performing a calibration of torus level instrumentation. Due to a procedural inadequacy associated with the on-line calibration of the torus level switch, technicians aligned the torus air space to the secondary containment through the calibration instrument water column. The inspectors determined the finding to be more than minor because an objective for the barrier integrity cornerstone was adversely impacted. Specifically, the physical configuration control attribute of containment was adversely impacted when the containment boundary was opened to secondary containment during the calibration. The finding was determined through a Phase 1 SDP to be of very low safety significance and within the licensee response band. A Non-Cited Violation (NCV) of Criterion V of 10 CFR 50, Appendix B, was issued for inadequate procedures.

Inspection Report# : [2003003\(pdf\)](#)

**Significance:**  Aug 23, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**TAGOUT/ISOLATION ERROR DISCHARGES 2000 GALLONS FROM FUEL POOL SURGE TANK TO RADWASTE AND RESULTS IN LOSS OF SPENT FUEL POOL COOLING.**

A finding and an associated Non-Cited Violation (NCV) for failure to follow applicable procedural guidance as required by Technical Specifications were identified by inspectors. The finding and NCV were associated with a loss of spent fuel pool cooling which resulted from an improper licensee valve tagout/clearance operation. Because the decay heat load in the spent fuel pool was relatively low the spent fuel pool temperature increase limited from 90.5 degrees Fahrenheit to approximately 96.5 degrees Fahrenheit and the event involved only the fuel cladding barrier, the finding was determined through a Phase 1 SDP to be of very low safety significance and within the licensee response band. Inspection Report# : [2002005\(pdf\)](#)

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## **Public Radiation Safety**

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## **Physical Protection**

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## **Miscellaneous**

Last modified : May 30, 2003