

# Cooper

## 4Q/2011 Plant Inspection Findings

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### Initiating Events

**Significance:**  Sep 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Assess and Manage Risk for Maintenance Near an Operating Reactor Feed Pump That Could Impact Initiating Events**

The inspectors identified a noncited violation of 10 CFR 50.65 (a)(4), “Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants,” for the failure of the licensee to adequately assess and manage the increase in risk associated with maintenance activities. Specifically, on June 3, 2011, the licensee failed to assess and manage the risk associated with leak injection work on a steam supply piping flange to the reactor feed pump. This finding was entered into the licensee’s corrective action program as condition reports CR-CNS-2011-09308, CR-CNS-2011-06363 and CR-CNS-2011-09452.

This finding is more than minor because it affected the protection against external factors attribute of the Initiating Events Cornerstone, and directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that Manual Chapter 0609, Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process,” could not be used due to the licensee’s inability to quantify the increase in risk associated with the heavy equipment near an offsite power tower or the possibility of a reactor feed pump trip due to work in the area. The inspectors utilized Manual Chapter 0609, Appendix M, “Significance Determination Process Using Qualitative Criteria,” to determine that the finding was of very low safety significance because there was a second reactor feed pump running that would have limited a plant transient. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity.

Inspection Report# : [2011004](#) (*pdf*)

**Significance:**  Sep 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Assess and Manage Risk for Maintenance Near Electrical Towers That Could Impact Initiating Events**

The inspectors identified a noncited violation of 10 CFR 50.65 (a)(4), “Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants,” for the failure of the licensee to adequately assess and manage the increase in risk associated with maintenance activities. Specifically, on May 31, 2011, licensee personnel failed to adequately assess and manage the increase in risk associated with a large trailer parked close to the 161kV line tower in the transformer yard area. This finding was entered into the licensee’s corrective action program as condition reports CR-CNS-2011-01439.

This finding is more than minor because it affected the protection against external factors attribute of the Initiating Events Cornerstone, and directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that Manual Chapter 0609, Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process,” could not be used due to the licensee’s inability to quantify the increase in risk associated with the heavy equipment near an offsite power tower. The inspectors utilized Manual Chapter 0609, Appendix M, “Significance Determination Process Using Qualitative Criteria,” to determine that the finding was of very low safety significance because other qualified sources of offsite power (the emergency and main transformers) provided sufficient remaining defense in depth in the event of a loss of offsite power to the station transformer. This

finding had a cross-cutting aspect in the area of human performance associated with the work practices component because the licensee failed to adequately define and effectively communicate expectations regarding procedural compliance and personnel failed to follow procedures.

Inspection Report# : [2011004](#) (*pdf*)

**Significance:**  Mar 24, 2011

Identified By: NRC

Item Type: VIO Violation

### **Failure to Assess and Manage Risk for Maintenance That Could Impact Initiating Events**

The inspectors identified a cited violation of 10 CFR 50.65(a)(4), “Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants,” for the failure of work control and operations personnel to adequately assess and manage the increase in risk associated with maintenance activities. Specifically, on February 17, 2011, work control and operations personnel failed to adequately assess and manage the increase in risk associated with maintenance activities involving the use of heavy equipment in or near the electrical switchyard and offsite power components. Due to the licensee’s failure to restore compliance from the previous NCV 050000298/2008005-02 and other subsequent violations within a reasonable time after the violations were identified, this violation is being cited in a Notice of Violation consistent with Section 2.3.2 of the NRC Enforcement Policy. This finding was entered into the licensee’s corrective action program as condition reports CR-CNS-2010-09146, CR-CNS-2008-08645 and CR-CNS-2009-03714.

The performance deficiency associated with this finding involved the licensee’s failure to adequately assess and manage the risk of planned maintenance activities. This finding is greater than minor because it affected the protection against external factors attribute of the Initiating Events Cornerstone, and directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that Manual Chapter 0609, Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process,” could not be used due to the licensee’s inability to quantify the increase in risk associated with the heavy equipment activity in the switchyard. The inspectors therefore used Manual Chapter 0609, Appendix M, “Significance Determination Process Using Qualitative Criteria.” The inspectors performed a bounding qualitative evaluation using the best available information and determined that the finding was of very low safety significance because another qualified source of offsite power (the emergency transformer) was unaffected by this performance deficiency and provided sufficient remaining defense in depth in the event of a loss of offsite power. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity.

Inspection Report# : [2011002](#) (*pdf*)

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## **Mitigating Systems**

**Significance:**  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Correctly Translate Design Requirements into Installed Plant Configuration**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” associated with the licensee’s failure to assure that the design basis requirements associated with a turbine building high energy line break were correctly translated into the plant design to ensure the 4160 volt switchgear and emergency diesel generators would remain functional following a line break. This issue was entered into the licensee’s corrective action program as Condition Report CR-CNS-2011-10618.

The inspectors determined that the licensee’s failure to ensure that design requirements were correctly translated into installed plant equipment was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to

initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding was determined to have a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action component, in that, the licensee failed to thoroughly evaluate concerns with high energy line break doors and this resulted in the resolutions taken not addressing the causes.

Inspection Report# : [2011005](#) (*pdf*)

**Significance:**  Sep 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Place the Essential Servicer Water System Strainers in (a)(1)**

The inspectors identified a noncited violation of 10 CFR 50.65 (a)(2), requirements for monitoring the effectiveness of maintenance at nuclear power plants. Specifically the licensee failed to demonstrate that the performance of the essential service water strainer backwash system was effectively controlled through appropriate preventive maintenance. As a result, the licensee did not establish goals or monitor the performance of the essential strainers per 10 CFR 50.65 (a)(1) to ensure appropriate corrective actions were initiated following repeated failures of the strainer automatic backwash system. The licensee entered this issue in their corrective action program as Condition Report CR-CNS-2011-09030.

This finding is more than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors performed an Inspection Manual Chapter 0609, Attachment 4, Phase 1 Initial Screening and Characterization of Findings, and determined that the finding was of very low safety significance (Green) because the maintenance rule aspect of the finding did not cause an actual loss of safety function of the system nor did it cause a component to be inoperable. This finding had a cross-cutting aspect in the area of human performance associated with the resources component because the procedure used to perform functional failure evaluations was not complete, accurate, or up-to-date because it did not identify that automatic service water strainer backwash was an essential function.

Inspection Report# : [2011004](#) (*pdf*)

**Significance:**  Sep 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Scope Reactor Building Drain Components and Steam Exclusion Doors that Affect Safety-related Systems in the Maintenance Rule Monitoring Program**

The inspectors identified two examples of a noncited violation of 10 CFR 50.65 (b)(2) for the licensee's failure to monitor nonsafety-related components whose failure could prevent safety-related systems from fulfilling their safety-related function. Specifically, the licensee did not include reactor building quad sump drains components that could prevent internal flooding from affecting essential equipment in the quads nor did the licensee include steam exclusion doors whose failure could affect essential equipment in the scope of the maintenance rule monitoring program specified in 10 CFR 50.65 (a)(1). Licensee personnel entered this issue in the corrective action program as Condition Reports CR-CNS-2011-05251 and CR-CNS-2011-02021.

The finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors performed an Inspection Manual Chapter 0609, Attachment 4, Phase 1 Initial Screening and Characterization of Findings, and determined that the finding was of very low safety significance (Green) because the maintenance rule aspect of the finding it is not a design or qualification deficiency, did not represent a loss of system safety function, did not represent an actual loss of a single train system for greater than the Technical Specification allowed outage time, and was not made risk-significant because of external events. The finding does not have a cross-cutting aspect since the failure to scope this

equipment into the maintenance rule was not recognized during the initial maintenance rule scoping activities (Circa 1996) and, as a result, is not indicative of current licensee performance.

Inspection Report# : [2011004](#) (pdf)

**Significance:** **G** Sep 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Identify, Correct, and Prevent Recurrence of a Significant Condition Adverse to Quality**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to implement adequate corrective actions to preclude recurrence of a significant condition adverse to quality. Specifically, during the root cause evaluation performed for a previous issue where a hazard barrier was disabled which resulted in the inoperability of both emergency diesel generators, the licensee failed to adequately implement corrective actions to prevent recurrence of this significant condition adverse to quality. This resulted in multiple repeat instances where the licensee breached hazard barriers for routine monthly maintenance from October 2010 through March 2011, without either; assessing the risk incurred to the station, declaring the protected equipment inoperable, or providing an equivalent level of protection for the equipment being protected by the barriers. This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2011-0684 and CR-CNS-2011-9217.

The failure to implement adequate corrective actions to preclude recurrence of a significant condition adverse to quality was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding had a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action component, in that, the licensee failed to; 1) thoroughly evaluate problems such that the resolutions addressed causes, and 2) for significant conditions, conduct effectiveness reviews of corrective actions to ensure that the problems were resolved.

Inspection Report# : [2011004](#) (pdf)

**Significance:** **G** Sep 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Procedure Results in Inoperable Essential Pump**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion VII, Control of Purchased Material, Equipment, and Services, associated with the licensee's failure to have adequate receipt inspection procedures to establish measures to assure that purchased material, equipment, and services conform to the procurement documents. Specifically, using the station procedure for the receipt inspection of the essential motor for the residual heat removal service water booster pump, the licensee failed to identify loose bearing cap bolting. The motor was subsequently installed in the plant for ten months before the degraded condition was identified. The licensee entered this issue into their corrective action program with CR CNS 2011-04643. Corrective actions resulted in revised receipt inspection requirements.

The failure to have adequate receipt inspection procedures to establish measures to assure that purchased material, equipment, and services conform to procurement documents is a performance deficiency. The performance deficiency was more than minor because it adversely impacts the equipment performance attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding screened as potentially risk significant since the finding represents an actual loss of safety function of a single train for greater than its Technical Specification allowed outage time. When evaluated per Manual Chapter 0609, Appendix A,

“Determining the Significance of Reactor Inspection Findings for At-Power Situations,” and the Cooper Phase 2 pre-solved table item, “One RHRSWBP,” the inspectors determined this finding to be potentially risk significant. The finding was forwarded to a senior reactor analyst for review. The senior reactor analyst performed the Phase 3 analysis and determined that the finding was of very low safety significance. This finding did not have a cross-cutting aspect since the receipt inspection took place greater than three years ago and, therefore, the finding is not reflective of current performance.

Inspection Report# : [2011004](#) (pdf)

**Significance:**  Jun 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Promptly Identify and Correct Conditions Adverse to Quality**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” associated with four examples of the licensee’s failure to promptly identify and correct conditions adverse to quality. Specifically, the licensee failed to identify and correct excessive setpoint drift of reactor core isolation cooling system pressure switches, the leak of oil from the service water booster pump, a vulnerability that allowed non-quality controlled material to be installed in safety related applications, and the cause of a failure of the high pressure coolant injection steam line high flow instrument. The licensee entered the finding into the corrective action program as Condition Reports 2011-07060, 2011-07105, 2011 07151, and 2011-06653.

The performance deficiency was determined to be more than minor because if left uncorrected, the continued failure to promptly identify and correct conditions adverse to quality could result in more risk significant equipment being inoperable, and is therefore a finding. This finding affected the Mitigating Systems Cornerstone. Using Manual Chapter 0609, Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings,” the finding was determined to have very low safety significance because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding was determined to have a crosscutting aspect in the area of problem identification and resolution, associated with the corrective action program component, in that, the licensee failed to implement a corrective action program with a low threshold for identifying issues; issues are identified completely, accurately and in a timely manner commensurate with their safety significance.

Inspection Report# : [2011006](#) (pdf)

**Significance:**  Jun 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Take Action for an Ineffective Corrective Action**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” for the failure to correct a condition adverse to quality. Specifically, the licensee determined that an interim corrective action to prevent recurrence was ineffective, yet it took no effective corrective action. As a result, the licensee was vulnerable to a repetitive condition adverse to quality. The licensee entered the issue into the corrective action program as Condition Report 2011-07152.

The finding was determined to be more than minor because the performance deficiency could be reasonably viewed as a precursor to an event in that the interim action was not effective as a barrier to prevent recurrence of an event. The finding is associated with the Mitigating Systems Cornerstone. The inspectors performed a Phase 1 screening in accordance with Manual Chapter 0609, Attachment 4, “Phase 1 – Initial Screening and Characterization of Findings,” and determined that the finding was of very low safety significance (Green) because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The inspectors determined that this finding had a crosscutting aspect in the area of problem identification and resolution associated with corrective actions because the licensee failed to prioritize and thoroughly

evaluate a condition report that documented an inadequate interim corrective action to prevent recurrence.

Inspection Report# : [2011006](#) (*pdf*)

**Significance:**  Jun 24, 2011

Identified By: NRC

Item Type: VIO Violation

### **Failure to Correctly Translate Design Requirements into Installed Plant Configuration**

The inspectors identified a cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to assure that the applicable design basis for applicable structures, systems, and components were correctly translated into specifications, procedures, and instructions. Specifically, the licensee failed to justify through evaluation that the diesel generator fuel oil day tanks would be available following a tornado missile strike on the tank vents. The violation was cited because the licensee failed to restore compliance in a reasonable time following documentation of the issue as a noncited violation in NRC Inspection Report 2010007 (issued December 3, 2010). The licensee entered this issue into the corrective action program as Condition Report 2011-06655.

The performance deficiency was determined to be more than minor because it was associated with the protection against the external factors attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding was determined to have a crosscutting aspect in the area of human performance, associated with the decision making component in that the licensee failed to use conservative assumptions in decision making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate it is unsafe in order to disapprove the action.

Inspection Report# : [2011006](#) (*pdf*)

**Significance:**  Jun 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Assess Potential Adverse Effects On Internal Flooding Analysis**

The inspectors identified two examples of a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with the failure of the licensee to ensure compliance with the requirements of station Procedure 3.3SAFE, "Safety Assessment." Specifically, licensee personnel failed to identify the potential adverse impact to the station internal flooding analysis for the installation of a temporary chemical decontamination skid associated with the fuel pool cooling system, and meshing material installed around the handrails. The licensee performed an evaluation for the skid which demonstrated compliance, and removed the meshing material when it was identified. These issues were entered into the licensee's corrective action program as Condition Reports CR-CNS-2011-2182, CR-CNS-2011-2232, CR-CNS-2011-2240, CR-CNS-2011-2242, CR-CNS-2011-2249, CR-CNS-2011-3551, CR-CNS-2011-5754, and CR-CNS-2011-5798.

The failure to comply with the requirements of station Procedure 3.3SAFE and identify and evaluate the potential adverse impact to the station's internal flooding analysis of several configuration changes was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding was determined to have a cross-cutting aspect in the area of human performance, associated with the decision making

component, in that the licensee failed to use conservative assumptions in decision making. Specifically, the licensee's qualitative analysis comparing the two hatches failed to take into account configuration differences associated with external structures around the hatch.

Inspection Report# : [2011003](#) (pdf)

**Significance:**  Jun 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Follow Procedure Results in Inadequate Operability Determinations**

The inspectors identified multiple examples of a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," regarding the licensee's failure to follow the requirements of EN-OP-104, "Operability Determinations." Specifically, the inspectors identified examples in which operations failed to properly document the basis for operability when a degraded or nonconforming condition had been identified. The licensee entered these issues into their corrective action program with individual condition reports for each issue. Corrective actions resulted in revised operability reviews and corrective actions to processes and training to prevent similar operability determination problems.

The performance deficiency is more than minor because the condition of performing inadequate operability determinations could become more significant if left uncorrected. Unrecognized degradation of essential equipment impacts the equipment performance attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding was determined to have a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action component, in that, the licensee failed to thoroughly evaluate problems such that the resolutions addressed causes and extent of conditions. Specifically, licensee personnel failed to thoroughly evaluate conditions adverse to quality and perform meaningful operability determinations.

Inspection Report# : [2011003](#) (pdf)

**Significance:**  Jun 23, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to Correctly Translate Design Requirements into Installed Plant Configuration**

The inspectors documented a self revealing, noncited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," associated with the licensee's failure to assure that the applicable design basis for structures, systems, and components were correctly translated into specifications, procedures, and instructions. Specifically, the licensee failed to correctly translate the design requirements for the service water zurn strainer's reduction gear to motor shaft into the installed plant equipment. This resulted in instances where the strainer motor was not able to perform its function of strainer backwash, an essential function, due to a failure of the wiper arm motor-to-gear box coupling. This issue was entered into the licensee's corrective action program as Condition Report CR-CNS-2010-2213.

The licensee's failure to ensure that design requirements were correctly translated into installed plant equipment was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the inspectors determined that a Phase 2/3 assessment was required because this was a design or qualification deficiency that did result in a loss of operability or functionality. The inspectors received support from the regional senior reactor analyst to evaluate this issue. As a bounding analysis, the analyst assumed: (1) the only time this design deficiency would cause an issue would be when strainer backwash was required due to debris loading; (2) the licensee had procedures already in place for manual actions in the event of

a coupling failure; (3) the licensee would implement these actions before the strainer became inoperable due to debris loading; and (4) these actions were not complex and could easily be implemented. Given these assumptions the analyst determined that the finding was of very low safety significance (Green). This finding did not have a cross-cutting aspect because the most significant contributor did not reflect current licensee performance.

Inspection Report# : [2011003](#) (pdf)

**Significance:** G Jun 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Adequately Assess and Manage Risk When Disabling A Hazard Barrier**

The inspectors identified a noncited violation of 10 CFR 50.65(a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," associated with the licensee's failure to perform an adequate risk assessment for a planned maintenance activity. Specifically, on August 19, 2010, during maintenance activities on emergency diesel generator 2, maintenance personnel inappropriately blocked open the steam exclusion boundary door N-103 that protected both emergency diesel generators, without properly assessing the potential effects on the emergency diesel generators and without appropriate compensatory measures in place. As such, this resulted in both emergency diesel generators being inoperable. These issues were entered into the licensee's corrective action program as Condition Report CR-CNS-2011-7660.

The licensee's failure to adequately assess and manage the risk of planned maintenance activities was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," the finding was determined to have very low safety significance. Specifically, Flowchart 1, "Assessment of Risk Deficit," requires the inspectors to determine the risk deficit associated with this issue. The senior reactor analyst performed a bounding analysis and determined that the probability that a high energy line breaks, causing the failure of both emergency diesel generators and initiating a consequential loss of offsite power, can be calculated as  $3.0 \times 10^{-7}$ . Given that the change in core damage frequency would be lower than this probability, the analyst determined that the finding was of very low safety significance (Green). The inspectors determined that this finding did not represent current performance because the guidance that formed the basis for the licensee's decision making was developed and approved over two years ago.

Inspection Report# : [2011003](#) (pdf)

**Significance:** G Jun 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Follow Procedure Results in Degraded Emergency Diesel Generator**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," regarding the licensee's failure to follow written work instructions. Specifically, the inspectors identified that maintenance personnel, when unable to follow written instructions on torquing emergency diesel generator bolting due to mechanical interference, then used alternate methods. These methods contributed to the subsequent loosening of the bolting and degrading the capability of the emergency diesel generator. The licensee entered this issue into their corrective action program as Condition Report CR-CNS-2011-07653.

The performance deficiency is more than minor since this failure to follow procedures resulted in a degraded emergency diesel generator which impacts the equipment performance attribute of the Mitigating Systems Cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The finding was evaluated using Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," and was determined to be of very low safety significance (Green) because there was not a design or qualification deficiency that resulted in a loss of operability or functionality, it did not create a loss of system safety function or of a single train for greater than the technical specification allowed outage time, it did not represent an actual loss of risk significant equipment, and it did not affect seismic, flooding, or severe weather initiating events. The finding was determined to have a cross-cutting aspect in the area of human performance, associated with the work practices

component, in that, personnel do not proceed in the face of uncertainty or unexpected circumstances. Specifically, when unable to torque emergency diesel generator bolting by following their written procedures, licensee personnel proceeded in the face of uncertainty by using alternate torque methods.

Inspection Report# : [2011003](#) (pdf)

**Significance:**  Jun 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Initiate Condition Reports for Nonconformances Identified During System Walk Downs**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure of licensee personnel to follow the requirements of Procedure 0.5, "Conduct of the Condition Report Process." Specifically, licensee personnel failed to initiate condition reports for adverse conditions related to the inability to remove air from emergency core cooling system piping. Licensee personnel identified that high pressure coolant injection system had an incorrect slope and that the core spray system had concentric reducers that could trap gas; however, personnel failed to initiate a condition report that documented the deficiency.

The performance deficiency associated with this finding involved failure of personnel to follow the requirements of Procedure 0.5. Specifically, licensee personnel failed to initiate condition reports for adverse conditions that could result in gas voids in the emergency core cooling systems that could affect operability. The first and third examples are more than minor because the condition of not initiating condition reports for adverse conditions could become more significant if left uncorrected. Using Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding is determined to have very low safety significance because neither example resulted in any loss of safety function of any technical specification required equipment. This finding was determined to have a cross-cutting aspect in the problem identification and resolution area associated with the corrective action program component because licensee personnel failed to implement a corrective action program with a low threshold for identifying issues.

Inspection Report# : [2011003](#) (pdf)

**Significance:**  Jun 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Promptly Correct an Adverse Condition Related to Emergency Core Cooling System Venting**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure of licensee personnel to take actions to promptly correct a condition adverse to quality. Specifically, the licensee did not take any interim actions to eliminate procedure steps that allowed venting of emergency core cooling systems without determining the amount of gas accumulated and the potential impact on system operability.

The performance deficiency associated with this finding involved the failure to correct a condition adverse to quality. This finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of the emergency core cooling systems to respond to initiating events and prevent undesirable consequences. Specifically, licensee personnel failed to promptly correct the previously identified condition adverse to quality of not tracking emergency core cooling system gas accumulation and its potential effects on system operability during surveillance testing. The inspectors performed the significance determination using NRC Inspection Manual Chapter 0609, Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings." The finding was determined to be of very low safety significance (Green) because it was not a design or qualification deficiency confirmed not to result in loss of operability or functionality; did not result in loss of a safety function, did not result in loss of safety function of a single train for longer than its allowed outage time, did not result in loss of a risk-significant non-technical specification system per 10 CFR 50.65, and did not screen as potentially risk significant because of a seismic, flooding or severe weather initiating event. The finding was determined to have a crosscutting aspect in the area of human performance, associated with the resources component, in that, the licensee failed to provide maintenance of design margins. Specifically, the licensee did not ensure that station procedure were adequate to assure nuclear safety, in that they did require measuring of the amount of entrained gas and any impact on equipment operability.

Inspection Report# : [2011003](#) (pdf)

**Significance:** G Mar 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Properly Evaluate All Senior Operator License Holders during Annual Operating Test**

The inspectors identified a noncited violation of 10 CFR Part 55.59 (a)(2)(ii), "Requalification," for the failure of the licensee to ensure that three senior operator license holders were evaluated during the annual operating test to the appropriate level of their license. This issue was entered into the licensee's corrective action program as Condition Report CR-CNS-2010-09350.

The failure of the licensee to properly evaluate the three senior operators to the level of their license in the annual operating test was a performance deficiency. The performance deficiency is more than minor, and therefore a finding, because it adversely impacted the human performance attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, the performance deficiency could have become more significant in that allowing licensed operators to return to the control room without valid demonstration of appropriate knowledge on the biennial examinations could be a precursor to a significant event if undetected performance deficiencies develop. Using Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and Appendix M, "Significance Determination Process Using Qualitative Criteria," the finding was determined to have very low safety significance (Green) because, although the finding resulted in three senior operator license holders standing watch in the senior operator position without being properly evaluated during the annual operating test, there were no actual safety consequences. This finding has a crosscutting aspect in the area of human performance associated with the decision making component because the licensee failed to use conservative assumptions in decision making and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action.

Inspection Report# : [2011002](#) (*pdf*)

**Significance:** G Mar 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Repeat Failure to Follow Procedure for Initiating Condition Reports**

The inspectors identified a noncited violation of 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures and Drawings," regarding the licensee's failure to follow the requirements of Administrative Procedure 0.5.CR, "Condition Report Initiation, Review and Classification." to enter conditions adverse to quality into the corrective action program. Specifically, between January 12, 2011, and February 24, 2011, the inspectors identified multiple instances where licensee personnel were aware of conditions adverse to quality, but failed to appropriately enter them into the corrective action program until being prompted by the inspectors. The licensee entered this issue in their corrective action program as CR-CNS-2011-1239.

The performance deficiency associated with this finding involved the licensee's failure to initiate condition reports as required by Administrative Procedure 0.5.CR, "Condition Report Initiation, Review and Classification." The performance deficiency was more than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone, and directly affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Although the examples mentioned above may be minor violations, the inspectors used Section 2.10.F of the NRC Enforcement Manual to determine that the performance deficiency was more than minor and is therefore a finding because the NRC has indication that the minor violation had occurred repeatedly. Using the Manual Chapter 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors determined that the finding has very low safety significance because all of the items in the Table 4a Mitigating Systems Cornerstone checklist were answered in the negative. The finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component, in that the licensee takes appropriate corrective actions to address safety issues and adverse trends in a timely manner. Specifically, the licensee failed to take appropriate corrective actions to address previously identified examples of employees not initiating condition reports in response to conditions adverse to quality.

Inspection Report# : [2011002](#) (*pdf*)

**Significance:** **W** Mar 14, 2011

Identified By: NRC

Item Type: AV Apparent Violation

**Inadequate Post-Fire Safe Shutdown Procedures**

An apparent violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," and Criterion XVI, "Corrective Action," with a preliminary white significance, was identified for failure to ensure that some steps contained in Emergency Procedures at Cooper Nuclear Station would work as written and the concurrent failure to assure that a condition adverse to quality was promptly identified and corrected, respectively. Specifically, steps in Emergency Procedure 5.4 POST-FIRE, "Post-Fire Operational Information," and Emergency Procedure 5.4 FIRE-S/D, "Fire Induced Shutdown From Outside Control Room," intended to reposition motor operated valves from the motor starter cabinet, would not have worked as written because the steps were not appropriate for the configuration of three valve motor starters. This finding was entered into the licensee's corrective action program under Condition Reports CR-CNS-2010-08193 and CR-CNS-2010-08242, however the licensee failed to adequately correct the procedure and the procedure remained unworkable.

The failure to verify that procedure steps needed to safely shutdown the plant in the event of a fire would actually reposition motor operated valves to the required positions and the simultaneous failure to address the previous finding that the same procedure steps would not work as written, was a performance deficiency. This finding was more than minor safety significance because it impacted the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences. This finding affected both the procedure quality and protection against external factors (such as fires) attributes of this cornerstone objective. This finding was determined to have a preliminary low-to-moderate safety significance (White) during a Phase 3 evaluation using best available information. This problem, which has existed since 1997, involves risk factors that were not dependent on specific fire damage. The scenarios of concern involve larger fires in specific areas of the plant which trigger operators to implement fire response procedures to place the plant in a safe shutdown condition. Since some of those actions could not be completed using the procedures as written, this would challenge the operators' ability to establish adequate core cooling. This finding had a crosscutting aspect in the Corrective Action Program component, under the Problem Identification and Resolution area (P.1(c) - Evaluation), because the licensee failed to properly evaluate the circuit operation or conduct verification tests to ensure that corrective actions for a previous violation would reliably position the three valves. Upon identification of this issue, both emergency procedures were revised to assure correct valve alignment by manually operating the valve locally. Therefore, this finding does not represent a current safety concern.

Inspection Report# : [2010006](#) (*pdf*)

**Significance:** **G** Mar 14, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Monitor the Performance of the Emergency Lights Against the Maintenance Rule Criteria**

A noncited violation of 10 CFR 50.65(a)(2) was identified for the failure to monitor the performance of the emergency lighting system against the established performance criteria. The licensee included the emergency lighting system in the Maintenance Rule program and specified that the emergency light batteries must be capable of 8 hours of operation, as required by 10 CFR Part 50, Appendix R, Section III.J. The team identified that the licensee did not perform tests that demonstrated the capability of the emergency lights to last for 8 hours; therefore, the licensee failed to monitor the performance of the emergency lights against the established performance criteria. This finding was entered into the licensee's corrective action program under Condition Reports CR-CNS-2010-08014 and CR-CNS-2010-08250.

The failure to monitor the performance of the emergency lighting system against the performance criteria stated in the Maintenance Rule program was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Mitigating Systems Cornerstone and it adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to ensure that emergency lights would last for 8 hours could adversely affect the ability of operators to perform all of the manual actions required to support safe shutdown in the event of a fire. The significance of this finding was evaluated using

Inspection Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” because the performance deficiency affected fire protection defense-in-depth strategies involving post fire safe shutdown systems. The finding was assigned a low degradation rating since the finding minimally impacted the performance and reliability of the fire protection program element. Specifically, the team determined that the licensee’s preventive maintenance strategy provided reasonable assurance that the emergency lights would last sufficiently long for the operators to perform the most time-critical manual actions required to support safe shutdown in the event of a fire. The team also noted that operators were required to obtain and carry flashlights. Therefore, the finding screened as having very low safety significance (Green). This finding had a crosscutting aspect in the area of Human Performance associated with Decision Making because the licensee failed to identify possible unintended consequences of the decision to change the maintenance program for the emergency lights. Specifically, the licensee failed to identify that deleting emergency light testing impacted Maintenance Rule performance monitoring.  
Inspection Report# : [2010006](#) (*pdf*)

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## Barrier Integrity

**Significance:**  Mar 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Adequately Implement Foreign Material Exclusion Controls**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” associated with the licensee’s failure to adequately implement Procedure 0.45, “Foreign Material Exclusion Program,” Revision 33. Specifically, between November 24, 2010, and March 24, 2011 multiple occasions were identified where licensee personnel failed to implement appropriate foreign material exclusion controls in areas designated as Zone 1 areas around safety related equipment (e.g., failure to appropriately log material into and out of the zone, or appropriately lanyard material in the zone) as required by station procedure. This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2010-9173, CR-CNS-2010-9678, CR-CNS-2011-2775 and CR-CNS-2011-3214.

The failure of station personnel to follow Procedure 0.45, “Foreign Material Exclusion Program,” when working in Zone 1 foreign material exclusion areas around safety related equipment/areas, was a performance deficiency. The performance deficiency was more than minor because it affected the human performance attribute of the Barrier Integrity Cornerstone, and directly affected the cornerstone objective of providing reasonable assurance that physical barriers protect the public from radionuclide releases caused by accidents or events, and is therefore a finding. Furthermore, station personnel’s continued failure to implement appropriate foreign material exclusion controls could result in the introduction of foreign material into critical areas, such as the spent fuel pool or the reactor cavity, which in turn could result in degradation and adverse impacts on materials and systems associated with these areas. Using Inspection Manual Chapter 0609, “Significance Determination Process,” Phase 1 Worksheets (at power issues), and Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” Phase 1 guidance (shutdown issues), this finding was determined to have a very low safety significance because; the finding was only associated with the fuel barrier (at power), and did not result in an increase in the likelihood of a loss of reactor coolant system inventory, degrade the ability to add reactor coolant system inventory, or degrade the ability to recover decay heat removal (shutdown). This finding had a crosscutting aspect in the area of human performance associated with the work practices component, in that the licensee failed to define and effectively communicate expectations regarding procedural compliance and personnel follow procedures.

Inspection Report# : [2011002](#) (*pdf*)

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## Emergency Preparedness

**Significance:**  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Identify Deficient Performance During a Single-Facility Drill**

The inspector identified a non-cited violation of 10 CFR 50.47(b)(14) for failure to correct a deficiency in drill or exercise performance. Specifically, the licensee failed to identify an inaccurate protective action recommendation during the critique of a Control Room Simulator drill conducted May 18, 2011.

The failure to identify an inaccurate protective action recommendation is a performance deficiency. This finding is more than minor because it impacted the drills and emergency response organization performance attributes of the Emergency Preparedness Cornerstone. The finding had a credible impact on the cornerstone objective because inaccurate protective action recommendations affect the licensee's ability to implement adequate measures to protect the health and safety of the public. This finding was evaluated using the Emergency Preparedness Significance Determination Process and was determined to be of very low safety significance because it was associated with the emergency preparedness planning standards and was not a functional failure or degraded performance. The finding was entered into the corrective action program as

Condition Report CR-CNS-2011-10277. The finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component because the program did not have a low enough threshold to completely and thoroughly identify incorrect performance.

Inspection Report# : [2011005](#) (pdf)

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## **Occupational Radiation Safety**

**Significance:**  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Conspicuously Post a High Radiation Area**

The inspector identified a non-cited violation of Technical Specification 5.7.1, resulting from the licensee's failure to conspicuously post a high radiation area during Refueling Outage 26. As corrective action, the licensee immediately stopped work and posted the area as required. The licensee documented the issues in apparent cause evaluation performed for Condition Report CR-CNS-2011-04891.

The failure to conspicuously post a high radiation area is a performance deficiency. The finding was more than minor because it was associated with the program and process attribute (exposure control) of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective, in that, the failure to conspicuously post a high radiation area had the potential to increase personnel dose. Using NRC Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspector determined the finding to be of very low safety significance because: (1) it was not associated with as low as reasonably achievable (ALARA) planning or work controls; (2) there was no overexposure; (3) there was no substantial potential for an overexposure; and (4) the ability to assess dose was not compromised. The finding has a human performance cross-cutting aspect associated with work practices component because the licensee did not ensure appropriate supervisory oversight of work activities to support nuclear safety.

Inspection Report# : [2011005](#) (pdf)

**Significance:**  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Maintain Control and Continuous Coverage of a Locked High Radiation Area**

The inspector identified a non-cited violation of Technical Specification 5.7.2, resulting from the licensee's failure to maintain controls by not providing continuous coverage in a posted locked high radiation area with dose rates greater than 1000 mrem per hour at 30 cm during Refueling Outage 26. As corrective action, the licensee performed an apparent cause evaluation and documented the issues identified in Condition Report CR-CNS-2011-09785.

The failure to maintain controls in a posted locked high radiation area is a performance deficiency. The finding was more than minor because it was associated with the program and process attribute (exposure control) of the

Occupational Radiation Safety Cornerstone and affected the cornerstone objective, in that, the failure to maintain controls and not provide continuous radiation protection coverage in a posted locked high radiation area with dose rates greater than 1000 mrem per hour at 30 cm had the potential to increase personnel dose. Using NRC Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspector determined the finding to be of very low safety significance because: (1) it was not associated with as low as reasonably achievable (ALARA) planning or work controls; (2) there was no overexposure; (3) there was no substantial potential for an overexposure; and (4) the ability to assess dose was not compromised. The finding has a human performance cross-cutting aspect associated with work practices component because the licensee did not ensure appropriate supervisory oversight of work activities to support nuclear safety.

Inspection Report# : [2011005](#) (pdf)

**Significance:**  Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to Follow Procedures for Dose Rate Alarms Received by Two Individuals**

The inspector reviewed a self revealing, non-cited violation of Technical Specification 5.4.1, resulting from workers who failed to follow procedures to exit the area when two dose rate alarms were received while performing decontamination work in the reactor cavity during Refueling Outage 26. As corrective action, the licensee performed an apparent cause evaluation and documented the issues identified in Condition Report CR-CNS-2011-04891.

The failure to follow procedures is a performance deficiency. The finding was more than minor because it was associated with the program and process attribute (exposure control) of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective, in that, the failure to follow radiation procedures and not leave the work area after receipt of a dose rate alarm had the potential to increase personnel dose. Using NRC Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspector determined the finding to be of very low safety significance because: (1) it was not associated with as low as is reasonably achievable (ALARA) planning or work controls; (2) there was no overexposure; (3) there was no substantial potential for an overexposure; and (4) the ability to assess dose was not compromised. The finding has a human performance cross-cutting aspect associated with work practices component because the individuals failed to use self- and peer-checking human error prevention techniques.

Inspection Report# : [2011005](#) (pdf)

**Significance:**  Sep 23, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Failure to Follow Procedure Results in Personnel Contaminations**

The inspectors reviewed a self revealing, noncited violation of Technical Specification 5.4.1, resulting from a plant individual who failed to follow radiation work permit requirements and was contaminated as a result. The condition was detected when the contamination monitor alarmed during the individual's attempt to process out of the radiologically controlled area. The individual was then decontaminated prior to exiting. The licensee entered the issue into the corrective action program as Condition Report CR-CNS-2011-8582.

The failure to follow radiation work permit requirements is a performance deficiency. The finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute (exposure control) of program and process and affected the cornerstone objective, in that, working outside the scope of the radiation work permit resulted in personnel contamination and contamination levels in the area had the potential to increase personnel dose. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined the finding to have very low safety significance because: (1) it was not associated with ALARA planning or work controls, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. The finding has a human performance cross-cutting aspect associated with the work practices component, when the licensee failed to assure that human error prevention techniques, such as self checking, are used to assure that work activities are performed safely when an individual failed to self check requirements prior to entering the radiation controlled area and was contaminated.

Inspection Report# : [2011004](#) (pdf)

**Significance:** **G** Jun 23, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Follow Procedure Results in Personnel Contaminations**

The inspectors reviewed a self-revealing, noncited violation of Technical Specification 5.4.1, resulting from workers who entered a posted contamination area without required protective clothing and were contaminated as a result. The condition was detected when contamination monitors alarmed during the workers attempt to process out of the radiologically controlled area. The workers were then decontaminated prior to exiting. The licensee entered the issue into the corrective action program as Condition Report CR-CNS-2011-03311. The corrective actions included communication of the issue throughout the department.

The failure to follow radiation work permit requirements is a performance deficiency. The finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute (exposure control) of program and process and affected the cornerstone objective, in that, working in an area outside the scope of the radiation work permit and not following protective clothing requirements resulted in personnel contaminations. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined the finding to have very low safety significance because: (1) it was not associated with ALARA planning or work controls, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. The finding was determined to have a cross-cutting aspect in the area of human performance, associated with the work control component, in that, the licensee failed to appropriately coordinate work activities by incorporating actions to address plant conditions that may affect work activities. Specifically, the radiation protection technician failed to verify current conditions prior to briefing workers on expected plant conditions that may affect work activities.

Inspection Report# : [2011003](#) (*pdf*)

**Significance:** **G** Jun 23, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Follow Radiation Work Permit Requirements**

The inspectors reviewed a self-revealing, noncited violation of Technical Specification 5.4.1, resulting from workers who failed to follow radiation work permit requirements and entered a high radiation area, after climbing from one scaffold to another. As corrective action, the licensee posted the area, searched for similar situations in the plant, and entered the issue into the corrective action program as Condition Reports CR-CNS-2011-0318 and -03217.

The failure to follow radiation work permit requirements is a performance deficiency. The finding was more than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute (exposure control) of program and process and affected the cornerstone objective, in that, working in an area outside the scope of the radiation work permit and not knowing the dose rates in the high radiation area had the potential to increase personnel dose. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined the finding to have very low safety significance because: (1) it was not associated with ALARA planning or work controls; (2) there was no overexposure; (3) there was no substantial potential for an overexposure; and (4) the ability to assess dose was not compromised. The finding has a human performance cross-cutting aspect associated with work practices component because the individuals did not use peer or self-checking before climbing to the second scaffold.

Inspection Report# : [2011003](#) (*pdf*)

**Significance:** **G** May 03, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Unclear Work Instruction**

The inspectors identified a noncited violation of Technical Specification 5.4.1, for a failure to implement procedures described in Regulatory Guide 1.33, Appendix A. Specifically, the licensee failed to implement procedures that provide guidance on creating clear, accurate work instructions. As a result, the work instructions were not able to be completed as written and needed parts were not available. This directly contributed to three instrumentation and control technicians receiving an unexpected radiation dose. A site stand-down was held to discuss the lessons learned

and the event was entered into the licensee's corrective action program as Condition Report CR-CNS-2011-4431.

This deficiency was reasonable for the licensee to foresee and prevent occurrence. The finding was more than minor because it is associated with the human performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The inspectors evaluated this finding using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process." The inspectors determined that the finding is of very low safety significance (Green) because it was not associated with ALARA planning or work controls, there was no overexposure, there was no substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. The finding has a cross-cutting aspect in the work practices component of the human performance area because the licensee did not effectively communicate expectations regarding procedural compliance and that personnel follow procedures. Specifically, the licensee displayed a cultural behavior that unacceptable behaviors, such as failing to follow procedures, are acceptable as long as the outcome is desirable [H.4.(b)].

Inspection Report# : [2011008](#) (pdf)

**Significance:**  May 03, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Recognize Work Order Risk**

The inspectors identified a noncited violation of Technical Specification 5.4.1, for failure to implement procedures described in Regulatory Guide 1.33, Appendix A. Specifically, the licensee failed to implement procedures that provide guidance on recognizing risk associated with a maintenance activity and properly accounting for that risk. This directly contributed to three instrumentation and control technicians receiving an unexpected radiation dose. A site stand-down was held to discuss the lessons learned and the event was entered into the licensee's corrective action program as Condition Report CR-CNS-2011-4435.

This deficiency was reasonable for the licensee to foresee and prevent occurrence. The finding was more than minor because it is associated with the human performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective to ensure adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The inspectors determined that the finding is of very low safety significance (Green) because it was not associated with ALARA planning or work controls, there was no overexposure, there was no substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. The finding has a cross-cutting aspect in the work control component of the human performance area because the licensee did not plan work activities by incorporating risk insights. Specifically, the licensee developed a work package that failed to recognize the risk associated with the activity [H.3(a)].

Inspection Report# : [2011008](#) (pdf)

**Significance:**  May 03, 2011

Identified By: NRC

Item Type: FIN Finding

#### **Failure to Implement Human Performance Procedure**

The inspectors identified a finding for a failure to implement human performance procedures. Specifically, the licensee failed to implement procedures that provided guidance on conducting pre-job briefs, preparing work in the field, and informing technicians on what to do when the workers encountered a problem. This contributed to three instrumentation and control technicians receiving an unexpected radiation dose. A site stand-down was held to discuss the lessons learned from the event. This was entered into the licensee's corrective action program as Condition Report CR-CNS-2011-4258.

The finding was more than minor because it is associated with the human performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The inspectors evaluated this finding using Inspection Manual Chapter 0609, Appendix C, "Occupational

Radiation Safety Significance Determination Process.” The inspectors determined that the finding is of very low safety significance (Green) because it was not associated with ALARA planning or work controls, there was no overexposure, there was no substantial potential for an overexposure, and the licensee’s ability to assess dose was not compromised. The inspectors determined that the apparent cause of this finding was the licensee’s failure to promote the use of human performance tools to ensure job tasks were properly completed. Therefore, this finding has a cross-cutting aspect in the work practices component of the human performance area because the licensee did not adequately communicate human error prevention techniques such that work activities are completed safely [H.4(a)].

Inspection Report# : [2011008](#) (*pdf*)

**Significance:**  May 03, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Revise An Unclear Work Instruction**

The inspectors identified a noncited violation of Technical Specification 5.4.1, for a failure to comply with procedures described in Regulatory Guide 1.33, Appendix A. Specifically, the licensee failed to implement procedures and a work order instruction that required the work order to be returned to work planners and revised if the original work scope is changed or a problem is encountered. This directly contributed to three instrumentation and control technicians receiving an unexpected radiation dose. A site stand-down was held to discuss the lessons learned from the event. This was entered into the licensee’s corrective action program as Condition Report CR-CNS-2011-4428.

The finding was more than minor because it is associated with the human performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The inspectors evaluated this finding using Inspection Manual Chapter 0609, Appendix C, “Occupational Radiation Safety Significance Determination Process.” The inspectors determined that the finding is of very low safety significance (Green) because it was not associated with ALARA planning or work controls, there was no overexposure, there was no substantial potential for an overexposure, and the licensee’s ability to assess dose was not compromised. The finding has a cross-cutting aspect in the decision making component of the human performance area because the licensee did not use conservative assumptions in decision-making. Specifically, the licensee did not validate the assumptions made when considering the change in work scope [H.1(b)].

Inspection Report# : [2011008](#) (*pdf*)

**Significance:**  May 03, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate High Radiation Area Briefing**

The inspectors identified a noncited violation of Technical Specification 5.7.2, for the failure to adequately brief radiation workers entering a locked high radiation area. Specifically, the radiation protection pre-job briefing failed to make workers knowledgeable of the radiation dose rates that may be encountered when pulling the intermediate range monitor shuttle tube from under the reactor pressure vessel and failed to identify any change in work scope or breach of the nuclear instrument system. This resulted in the workers being exposed to higher than expected dose rates. The workers immediately evacuated the area and contacted radiation protection. The licensee held a site stand-down to discuss lessons learned and this finding was entered into the licensee’s corrective action as Condition Report CR-CNS-2011-04441.

The finding was more than minor because it is associated with the human performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation because workers were exposed to higher dose rates. The inspectors evaluated the significance of the finding using NRC Inspection Manual 0609, Appendix C, “Occupational Radiation Safety Significance Determination Process,” dated August 19, 2008. The inspectors determined that the finding is of very low safety significance because it was not associated with ALARA planning or work controls, there was no overexposure, there was no substantial potential for an overexposure, and the licensee’s ability to assess dose was not compromised. In addition, the finding had a cross-cutting aspect in the work control component of the human performance area because the licensee did not

appropriately communicate, coordinate, and cooperate with each other during the radiation protection pre-job briefing and failed to keep personnel apprised of plant conditions that may affect work activities to ensure radiological safety was maintained [H.3(b)].

Inspection Report# : [2011008](#) (*pdf*)

**Significance:**  May 03, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Follow Radiation Protection Job Coverage Procedures**

The inspectors identified a noncited violation of Technical Specification 5.4.1(a), for the failure to follow Radiation Procedure 9.EN-RP-141, "Job Coverage," Revision 8. Specifically, the radiation protection personnel were monitoring workers pulling the intermediate range monitor shuttle tube from under the reactor pressure vessel and failed to implement radiation protection job coverage requirements that resulted in the workers being exposed to dose rates as high as 39 rem per hour at 30 centimeters from the tip of the shuttle tube. The licensee immediately evacuated and restricted access to the area. This finding was documented in the licensee's corrective action program as Condition Reports CR-CNS-2011-04442, CR-CNS-2011-04255, CR-CNS-2011-04595, CR-CNS-2011-05443, CR-CNS-2011-05444, CR-CNS-2011-05446, CR-CNS-2011-05447, and CR-CNS-2011-05448.

The finding was more than minor because it is associated with the human performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation because workers were exposed to higher dose rates. The inspectors evaluated the significance of the finding using NRC Inspection Manual 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008. The inspectors determined that the finding is of very low safety significance because it was not associated with ALARA planning or work controls, there was no overexposure, there was no substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised. In addition, the finding has a cross-cutting aspect in the work practices component of the human performance area because the licensee failed to use human error prevention techniques such as self-checking and peer-checking to ensure that job coverage procedures were followed [H.4(a)].

Inspection Report# : [2011008](#) (*pdf*)

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## **Public Radiation Safety**

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### **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.

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## **Miscellaneous**

**Significance:** SL-IV Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Provide Complete and Accurate Solid Radwaste Shipment Information in Annual Reports**

Inspectors identified a non-cited violation of 10 CFR 50.9, "Completeness and Accuracy of Information," because the Annual Radiological Effluent Release Reports for 2008, 2009, and 2010 were not complete and accurate in all material respects with regard to solid radwaste shipped offsite from Cooper Nuclear Station. Specifically, the numbers

of solid radwaste shipments, locations, burial volumes, and total activity amounts were not correct. This issue was entered in the licensee's corrective action program as Condition Reports CR-CNS-2011-06921 and CR-CNS-2011-11740.

This issue was dispositioned using traditional enforcement because the failure to provide complete and accurate information in Annual Radiological Effluent Release Reports has the potential to impact the NRC's ability to perform its regulatory function. This violation is characterized as a Severity Level IV violation consistent with Sections 2.2.1 and 6.9 of the NRC Enforcement Policy. This finding was determined to be of very low safety significance. No cross-cutting aspect was identified because this performance deficiency was dispositioned using traditional enforcement. Inspection Report# : [2011005](#) (*pdf*)

**Significance: SL-IV** Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Perform Required 10 CFR 50.59 Evaluations for Changes**

The inspectors identified a non-cited violation of 10 CFR 50.59, "Changes, Test, and Experiments," associated with the licensee's failure to adequately evaluate changes in order to ensure that they did not require prior NRC approval. Specifically, the inspectors determined that the re-analysis of the turbine building peak pressure in response to a high energy line break event that the licensee had performed used a different calculation method than what had originally been used to support the station's licensing basis. This re-analysis was performed for the purpose of gaining margin on the station doors credited with protecting safety-related equipment from the line break event. This new method resulted in a lower peak turbine building pressure. This issue was entered into the licensee's corrective action program as Condition Reports CR-CNS-2011-10391 and CR-CNS-2011-11861.

The licensee's failure to implement the requirements of 10 CFR 50.59 and adequately evaluate changes was a performance deficiency. The performance deficiency is greater than minor because the failure to follow the requirements of 10 CFR 50.59 and receive prior NRC approval for changes in licensed actions impacted the NRC's regulatory ability, and is, therefore, a finding. Since violations of 10 CFR 50.59 are considered to impede or impact the regulatory process they are dispositioned using the traditional enforcement process. The enforcement manual specifies that the severity level is determined in parallel with the Significance Determination Process. As such, the inspectors concluded that this issue also represented a performance deficiency under the Reactor Oversight Process because the licensee failed to appropriately evaluate the proposed change in accordance with the requirements of Station Procedure 0.8, "10CFR50.59 and 10CFR72.48 Reviews." The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone, and affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Manual Chapter 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The inspectors reviewed this issue in accordance with NRC Inspection Manual Chapter 0612 and the NRC Enforcement Manual and Enforcement Policy and concluded that because the violation was determined to be of very low safety significance, was not repetitive or willful, and was entered into the corrective action program, this violation is being treated as a Severity Level IV non-cited violation consistent with the NRC Enforcement Policy. The finding was determined to have a cross-cutting aspect in the area of human performance, associated with the decision-making component in that the licensee failed to use conservative assumptions in decision making when they failed to recognize that the new calculation methodology was a change to a previously approved methodology.

Inspection Report# : [2011005](#) (*pdf*)

**Significance: SL-IV** Jun 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Report Conditions Prohibited by Technical Specifications and Safety System Functional Failures**

The inspectors identified a noncited violation of 10 CFR 50.73, "Licensee Event Report System," associated with the licensee's failure to submit a licensee event report within 60 days following discovery of an event meeting the reportability criteria as specified. Specifically, a condition prohibited by technical specifications occurred when a zurn

strainer failure rendered the service water system inoperable for longer than the action statement and would have prevented fulfillment of a safety function. The licensee entered the finding into the corrective action program as Condition Report 2011-06778.

The inspectors reviewed this issue in accordance with NRC Inspection Manual Chapter 0612 and the NRC Enforcement Manual. Through this review, the inspectors determined that traditional enforcement was applicable to this issue because the NRC's regulatory ability was affected. Specifically, the NRC relies on the licensees to identify and report conditions or events meeting the criteria specified in regulations in order to perform its regulatory function; and when this is not done, the regulatory function is impacted. The inspectors determined that this finding was not suitable for evaluation using the significance determination process, and as such, was evaluated in accordance with the NRC Enforcement Policy. The finding was a violation determined to be of very low safety significance, was not repetitive or willful, and was entered into the corrective action program. Therefore, this violation is being treated as a Severity Level IV noncited violation consistent with the NRC Enforcement Policy. This finding had a crosscutting aspect in the area of problem identification and resolution associated with the corrective action component, in that, the licensee failed to appropriately and thoroughly evaluate for reportability aspects all factors associated with the equipment failure.

Inspection Report# : [2011006](#) (pdf)

**Significance: SL-IV** Jun 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Perform 10 CFR 50.59 Evaluation for Design Change**

The inspectors identified a noncited violation of 10 CFR 50.59, "Changes, Tests, and Experiments," associated with the failure to adequately evaluate a change in order to ensure that it did not require prior NRC approval. Specifically, the licensee revised a residual heat removal pump motor cable sizing calculation to a smaller sized cable without a change evaluation. The licensee entered the issue into the corrective action program as Condition Report 2011-01730.

The finding was determined to be more than minor because the licensee failed to perform a 10 CFR 50.59 evaluation when required. Specifically, the NRC relies on licensees to identify and report conditions or events meeting the criteria specified in regulations in order to perform its regulatory function, and when this is not done the regulatory function is impacted, and is therefore more than minor. Violations of 10 CFR 50.59 are considered to impede or impact the regulatory process, so they are dispositioned using the traditional enforcement process. The enforcement manual specifies that the severity level is determined in parallel with the Significance Determination Process (SDP). The inspectors performed a Phase 1 screening in accordance with Manual Chapter 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," and determined that the finding was of very low safety significance (Green) because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. Therefore, the inspectors categorized the finding as Severity Level IV in accordance with the enforcement manual. The finding was a violation determined to be of very low safety significance, was not repetitive or willful, and was entered into the corrective action program. Therefore, this violation is being treated as a noncited violation consistent with the NRC Enforcement Policy. The inspectors determined the cause of the finding through interviews and document reviews. This finding was determined to have a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program in that the licensee failed to appropriately and thoroughly evaluate all factors associated with the design change.

Inspection Report# : [2011006](#) (pdf)

**Significance: N/A** Jun 24, 2011

Identified By: NRC

Item Type: FIN Finding

**Cooper Nuclear Station, 2011, Biennial Problem Identification and Resolution Inspection Assessment**

The inspectors reviewed approximately 400 condition reports, work orders, cause evaluations, self-assessments and audits, operating experience evaluations, system health reports, trending reports, metrics, and other supporting documentation to determine if problems were being properly identified, prioritized, evaluated, and resolved.

The inspectors concluded that the licensee generally identified, evaluated, and corrected problems according to their safety significance. The licensee generally analyzed operating experience appropriately, performed effective self-assessments, and maintained an effective safety conscious work environment.

The inspectors identified weaknesses in the areas of operability evaluations, thorough evaluations, and the effectiveness of corrective actions. This was evidenced most notably by repetitive diesel failures in 2009 and three recent cited violations. The inspectors noted that the previous Problem Identification and Resolution inspection, documented in NRC Inspection Report 2009007, identified weaknesses in operability evaluations and that some root causes could have been more thorough. Therefore, the inspectors considered the weaknesses in operability evaluations and thorough evaluations to be repetitive weaknesses. In addition, NRC Inspection Report 2011002 documents a repetitive weakness in initiating condition reports evidenced by multiple noncited violations. The inspectors concluded that the licensee needs to be more effective at correcting the observed corrective action program weaknesses in identification, operability evaluations, and thorough evaluations.

Inspection Report# : [2011006](#) (*pdf*)

**Significance: SL-IV** Jun 23, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Communication of an NRC Inspector's Presence by Station Personnel**

The inspectors identified a Severity Level IV noncited violation of 10 CFR 50.70, "Inspections," associated with the licensee's failure to ensure that the arrival and presence of NRC inspectors was not communicated to persons at the facility. Specifically, a radiation protection technician manning the access point to the drywell informed other individuals entering the drywell to perform work of inspector's presence and location during an unannounced walkdown of the drywell to observe licensee work activities. This issue was entered into the licensee's corrective action program as Condition Report CR-CNS-2011-4124.

Licensee personnel's action of announcing the presence and location of NRC inspectors during an unannounced walkdown inspection was a performance deficiency. The inspectors reviewed this issue in accordance with NRC Inspection Manual Chapter 0612 and the NRC Enforcement Manual. Through this review, the inspectors determined that traditional enforcement was applicable to this issue because the NRC's regulatory ability was affected. Specifically, the NRC relies on its ability to perform unannounced inspections to evaluate licensee performance, and communicating the presence and location of NRC inspectors affects their ability to perform these inspections, and as such the regulatory function is impacted. The inspectors determined that this finding was not suitable for evaluation using the significance determination process, and as such, was evaluated in accordance with the NRC Enforcement Policy. The finding was reviewed by NRC management and because the violation was determined to be of very low safety significance, was not repetitive or willful, and was entered into the corrective action program, this violation is being treated as a Severity Level IV noncited violation consistent with the NRC Enforcement Policy. The inspectors determined that there was no cross-cutting aspect associated with this finding because this issue was not indicative of current performance because the violation did not affect any of the safety culture components.

Inspection Report# : [2011003](#) (*pdf*)

**Significance: SL-IV** Mar 24, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Notify the NRC within Eight Hours of a Nonemergency Event**

The inspectors identified a Severity Level IV noncited violation of 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors," for the licensee's failure to notify the NRC Operations Center within 8 hours following discovery of an event meeting the reportability criteria as specified. Specifically, on January 18, 2011, while the B train of residual heat removal was inoperable for scheduled maintenance the A train experienced a fault which rendered it inoperable for its low pressure coolant injection function. As a result, both trains of residual heat removal were incapable of performing their system specified safety function of residual heat removal. The licensee's evaluation of this condition determined that it was not a reportable event because both core spray pumps were operable and the D residual heat removal pump was available therefore the overall function of decay heat removal was maintained. The inspectors questioned this rationale, because the apparent intent of the reporting criteria as described in NUREG 1022, "Event Reporting Guidelines 50.72 and 50.73," Revision 2, section 3.2.7, was to cover an event or condition where structures, components, or trains of a safety system could have failed to perform their

intended safety function as described in the plant safety analysis. Consultation with the Office of Nuclear Reactor Regulation determined that this was the intent of the criteria. As such, the inspectors determined that the licensee had failed to make a non-emergency 8 hour report as required by 10CFR 50.72(b)(3)(v). The licensee submitted the 8 hour report on January 21, 2011 and entered this issue into the corrective action program as Condition Report CR-CNS-2011-0618.

The failure to make an applicable non-emergency 8-hour event notification report within the required time frame was determined to be a performance deficiency. The inspectors reviewed this issue in accordance with NRC Inspection Manual Chapter 0612 and the NRC Enforcement Manual. Through this review, the inspectors determined that traditional enforcement was applicable to this issue because the NRC's regulatory ability was affected. Specifically, the NRC relies on the licensees to identify and report conditions or events meeting the criteria specified in regulations in order to perform its regulatory function; and when this is not done, the regulatory function is impacted. The inspectors determined that this finding was not suitable for evaluation using the significance determination process, and as such, was evaluated in accordance with the NRC Enforcement Policy. The finding was reviewed by NRC management and because the violation was determined to be of very low safety significance, was not repetitive or willful, and was entered into the corrective action program, this violation is being treated as a Severity Level IV noncited violation consistent with the NRC Enforcement Policy. This finding had a crosscutting aspect in the area of human performance associated with the decision making component, in that, the licensee failed to use conservative assumptions in their decision making.

Inspection Report# : [2011002](#) (*pdf*)

Last modified : March 02, 2012