

Fermi 2

2Q/2006 Plant Inspection Findings

Initiating Events

G**Significance:** Apr 14, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Control Transient Combustibles

The inspectors identified a finding of very low significance (Green) associated with a Non-Cited Violation of license condition 2.C(9) for the failure to appropriately control transient combustibles on multiple occasions. Personnel left aerosol cans containing flammable materials unattended on a workbench in violation of the licensee's procedure for the control of transient combustibles. Once these issues were identified, the licensee moved the cans to an appropriate flammable storage locker. The primary cause of this finding is related to the corrective action aspect of the problem identification and resolution cross-cutting area in that the NRC had previously identified issues relating to the failure to control transient combustible materials but adequate corrective actions were not put in place to prevent recurrence of this issue.

The finding was more than minor because the repeated failure to properly control combustible materials, if left uncorrected, could become a more safety-significant concern. This finding was of very low safety significance because the quantity of transient combustibles involved was low and the applicable fire barriers and suppression systems remained operable. (Section 40A2.3)

Inspection Report# : [2006002\(pdf\)](#)**G****Significance:** Sep 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Second Failure of Drywell Cooler Number 4

Green. A Green self-revealing non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified when a joint gasket on drywell cooler number 4 failed on June 25, 2005. Specifically, after maintenance in January 2005 to correct a similar gasket leak, the licensee neither checked nor re-torqued the bolts on drywell cooler number 4 as required and, therefore, failed to ensure that the gasket was sufficiently compressed to prevent the June failure. The licensee entered the issue into their corrective action (CA) program for resolution, performed a root cause evaluation, and implemented several design change packages and temporary modifications to ensure the condition does not recur. The cause of the finding is related to the cross-cutting element of problem identification and resolution (corrective action).

This finding is greater than minor because the size of the leak caused the licensee to lose the ability to reliably monitor drywell unidentified leakage which ultimately resulted in an unplanned reactor shutdown. The finding is of very low safety significance because the finding did not contribute to both the likelihood of an initiating event and the unavailability of mitigating equipment or functions or increase the likelihood of a fire or internal/external flood. (Section 40A3.2)

Inspection Report# : [2005014\(pdf\)](#)

Mitigating Systems

G**Significance:** Apr 14, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure of Breaker to Open

The inspectors identified a finding of very low significance associated with a Non-Cited Violation (NCV) of 10CFR50, Appendix B, Criterion XVI (Corrective Action) for the failure to identify and correct a condition adverse to quality related to the emergency diesel generator 12 (EDG-12) output circuit breaker cubicle. A newly installed, refurbished circuit breaker failed to open during an EDG-12 operability run on August 6, 2004. The licensee did not adequately identify and correct the conditions associated with this breaker failure, and, on February 3, 2006, a newly installed, refurbished breaker failed to open upon demand, resulting in additional unavailability time for EDG-12 and a challenge to the EDG's limiting condition for operation. The primary cause of this finding is related to the identification aspect of the problem identification and resolution cross-cutting area. The licensee replaced the refurbished breaker with the original breaker and successfully conducted the EDG operability run. In addition, the licensee planned to thoroughly inspect the breaker cubicle when the associated bus was de-energized during the April 2006 refueling outage.

The finding is more than minor because it was associated with the equipment performance attribute and affected the reliability objective of the Mitigating Systems Cornerstone. Using the Mitigating Systems Significance Determination Process, the inspectors determined the finding to be of very low safety significance because the inspectors answered no to all five phase 1 screening questions. (Section 1R19)

Inspection Report# : [2006002\(pdf\)](#)



Significance: Apr 14, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Control of Cables and Wiring in the Power Block

The inspectors identified a finding of very low significance (Green) associated with a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," for the failure to adequately control cabling for cameras, vibration monitoring, and telephones in the power block. The licensee did not perform the required evaluations prior to installing 195 cables in the reactor and auxiliary buildings, 4 of which crossed divisional boundaries. The licensee entered this issue into their corrective action program and conducted a thorough walkdown of all plant areas documenting all uncontrolled cables. The cables are being evaluated and processed through the new temporary modification process for engineering evaluation or removal. The primary cause of this finding is related to the corrective action aspect of the problem identification and resolution cross-cutting area.

The finding is greater than minor because it was associated with the design control attribute and affected the reliability objective of the Mitigating Systems Cornerstone. Using the Mitigating Systems Significance Determination Process, the inspectors determined the finding to be of very low safety significance because the finding was a design deficiency that did not result in a loss of function per GL 91-18 (rev 1). (Section 1R23.2)

Inspection Report# : [2006002\(pdf\)](#)



Significance: Jan 13, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Non Conservative Calculation for Diesel Generator Loading

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to consider the effects of frequency variation on diesel generator loading. Specifically, the licensee's diesel generator loading calculations failed to account for increased loading that could result from allowable frequency variations above the nominal generator frequency of 60 Hz. The licensee's corrective action was to evaluate the need for revised margin in the calculation due to frequency variations. This issue was more than minor because it affected the Mitigating Systems Cornerstone objective of ensuring availability, reliability, and capability of systems needed to respond to a DB accident by failing to assure that the diesel generators would not inadvertently become overloaded. This finding was of very low safety significance because it screened out as Green using the SDP Phase 1 worksheet. (Section 1R21.2.b.1)

Inspection Report# : [2005016\(pdf\)](#)



Significance: Jan 13, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Adequate Leakage Criterion Not Established for the EDG Air Start System

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to translate the design basis requirements for each of the Emergency Diesel Generator starting air systems into specifications, procedures, and instructions. As a result of this failure, no objective evidence existed that the required emergency diesel generator starting air system capacity was being maintained. The licensee's corrective actions were to develop a formal calculation to document the acceptability of the Technical Specifications limit for the air capacity and to implement changes to the diesel starting air system and check valve testing, the process computer alarm setpoint, and the alarm response procedures. This issue was more than minor because it affected the Mitigating Systems Cornerstone objective of ensuring availability, reliability, and capability of systems needed to respond to a DB accident by failing to assure that the degradation of the capability of the diesel starting air system would be detected. This finding was of very low safety significance because it screened out as Green using the SDP Phase 1 worksheet. (Section 1R21.2.b.2)

Inspection Report# : [2005016\(pdf\)](#)



Significance: Jan 13, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Translate CST Temperature Limit into Design Documents and Procedures

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to establish the correct condensate storage tank temperature limit for use in the plant accident analyses and net positive suction head calculations and for the failure to translate the condensate storage tank temperature limit into plant procedures to ensure that temperature limits are not exceeded. The licensee's corrective action was the implementation of a tentative maximum condensate storage tank temperature limit and an analysis to demonstrate that there was adequate margin in the accident analysis. This issue was more than minor because it affected the Mitigating Systems Cornerstone objective of ensuring the reliability of Reactor Core Isolation Cooling, High Pressure Coolant Injection, and the Core Spray Systems because the failure to establish a temperature limit had the potential to reduce the margin of safety that the licensee believed to be available as a

result of calculations. The finding was of very low safety significance because it screened out as Green using the SDP Phase 1 worksheet. (Section 1R21.2.b.3)

Inspection Report# : [2005016\(pdf\)](#)

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Significance: Dec 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Corrective Actions To Ensure Availability Of Safe Shutdown Equipment During Fire

The inspectors identified a finding of very low safety significance and an associated non-cited violation of license condition 2.C(9) for the failure to implement adequate corrective actions in a timely manner. From December 21, 2004, to July 17, 2005, the licensee failed to implement requirements delineated in calculation DC-4921, "Appendix R Calculation," Revision E, to rack out (open) four 4160 V maintenance tie breakers to ensure that one safe shutdown division is maintained free of fire damage. This finding also affected the cross-cutting area of Problem Identification and Resolution (corrective action) because the licensee failed to take appropriate corrective actions when the issue was discovered in December 2004. Once identified in July 2005, the licensee implemented an hourly fire watch, racked out the four affected maintenance tie breakers, and revised the relevant operating procedures.

The finding was more than minor because a potential existed whereby postulated fire-induced cable damage due to hot shorts at the maintenance tie breakers could have adversely affected the emergency diesel generators in the alternate division rendering safe shutdown equipment inoperable. The finding was of very low safety significance because the postulated fire scenario involved a low fire frequency combined with the likelihood of a random loss of offsite power to the opposite division and the probability of two hot shorts.

Inspection Report# : [2005019\(pdf\)](#)

G

Significance: Dec 16, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Corrective Action Program Procedure

The inspectors identified a Non-Cited Violation (NCV) of 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to follow procedural requirements that all actions specified for two conditions adverse to quality were complete before the associated Level 1 condition assessment resolution documents (CARDS) were closed. Specifically, the licensee did not complete all specified corrective actions for degraded fire penetration seals in the reactor building steam tunnel and for a loose tubing connection on a bulkhead fitting for EDG 12. Upon discovery, the licensee ensured all specified corrective actions for the degraded conditions were addressed and entered this issue into the corrective action program.

The finding was more than minor because, if left uncorrected, the issue may have resulted in a more significant safety concern. Specifically, the failure to complete corrective actions for Level 1 CARDS could result in the failure to correct significant conditions adverse to quality. The finding was of very low safety significance because it did not result in the actual loss of the safety function of the train or system. The finding was a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." (Section 40A2).

Inspection Report# : [2005020\(pdf\)](#)

G

Significance: Sep 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Scaffold Variance Evaluations

Green. The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to follow established procedures. Specifically, licensee personnel failed to properly evaluate an issue regarding the installation of scaffolding near safety-related equipment. The licensee entered the deficiency into their CA program, re-evaluated all relevant scaffolds, and made adjustments as necessary. The cause of the finding is related to both the cross-cutting elements of human performance (personnel) and problem identification and resolution (corrective action).

This finding is greater than minor because the licensee routinely failed to perform the proper evaluations. Using IMC 0609, "Significance Determination Process," all the Phase I questions under the Mitigating Systems Cornerstone were satisfied to indicate that the finding was Green and considered to be of very low safety significance. (Section 1R15.2)

Inspection Report# : [2005014\(pdf\)](#)

G

Significance: Jul 15, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Have Separation Between Redundant Safe Shutdown Cables (Section 1R05.2)

The team identified a Non-Cited Violation of the Operating License for the failure to ensure that one redundant train of systems necessary to achieve and maintain hot shutdown conditions was free of fire damage.

Inspection Report# : [2005006\(pdf\)](#)

G

Significance: Jul 15, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Ensure that Adequate Electrical Coordination Existed in Post -Fire Alternate Shutdown Circuits (Section 1R05.3)

The team identified a Non-Cited Violation of the Operating License for a failure to provide adequate electrical coordination of protective devices to ensure that postulated fire-induced electrical faults would not result in the loss of post-fire alternative safe shutdown equipment.

Inspection Report# : [2005006\(pdf\)](#)

G

Significance: Jul 15, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Install Smoke Detectors in Accordance with NFPA 72-E (Section 1R05.10)

The team identified a Non-Cited Violation of the Operating License for the failure to have adequate fire detection installed in the Division I Switchgear Room (Fire Zone 04AB2) in accordance with the applicable National Fire Protection Association (NFPA) codes. Specifically, the licensee failed to install detectors in three beam pockets and in the mezzanine area. The licensee also failed to have compensatory measures established for the lack of adequate detection in the area.

Inspection Report# : [2005006\(pdf\)](#)

G

Significance: Jul 15, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement Adequate Corrective Actions in a Timely Manner (Section 4OA2)

The team identified two examples in which the licensee failed to implement adequate corrective actions in a timely manner. The first example illustrates the licensee's failure to implement corrective actions for the issues identified in their 10 CFR Part 50, Appendix R analysis. The second example illustrates the licensee's failure to take timely and adequate corrective actions for the lack of fuse coordination and cable protection.

Inspection Report# : [2005006\(pdf\)](#)

Barrier Integrity

G

Significance: Sep 30, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Division 1 Control Center Heating Ventilation and Air Conditioning Return Fan Bearing Slippage

Green. A self-revealing NCV was identified for the failure to comply with 10 CFR 50, Appendix B, Criterion III, "Design Control." The licensee did not adequately translate vendor design information regarding the torque values for installing a bearing for the division 1 control center heating, ventilation and air conditioning return fan. Consequently, the bearing degraded and required immediate shutdown for repairs during normal operation.

This finding is greater than minor because it affected the licensee's ability to protect the control room operators from radio-nuclide releases caused by accidents or events and was associated with the Barrier Integrity Cornerstone and the respective attribute of structure system and components and Barrier Performance. The finding was determined to be of very low safety significance because it did not result in an actual loss of safety function due to the other redundant system being available to fulfill their safety function. (Section 4OA3.1)

Inspection Report# : [2005014\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance:  Dec 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Processing Radwaste With RW Ventilation System Isolated

The inspectors identified a finding of very low safety significance and an associated non-cited violation of Technical Specification 5.4.1.a for the failure to follow procedures that ensure the control of radioactivity to the environment during the processing of radioactive waste. Procedures required the radioactive waste building ventilation system to be in operation during the processing of radioactive waste. Immediate corrective actions included the issuance of night orders prohibiting waiving the prerequisite and revising the relevant procedures to clearly identify this requirement. The primary cause of this finding was related to the cross-cutting area of Problem Identification & Resolution (corrective action) because the licensee failed to take effective corrective actions when a related question was raised within the corrective action process on two previous occasions.

The issue was more than minor because it was associated with the Program/Process attribute of the Public Radiation Safety Cornerstone and potentially affected the cornerstone objective to ensure adequate protection of the public from exposure to radioactive materials released into the environment. Also, waiving a prerequisite for equipment required to limit offsite radiological dose to members of the public without a proper assessment can reasonably be viewed as a precursor to a more significant event. The issue represents a finding of very low safety significance because no radiological release occurred during radioactive waste processing; therefore, there was minimal actual risk to the public.

Inspection Report# : [2005019\(pdf\)](#)

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

Last modified : August 25, 2006