Fermi 2
2Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2010
Identified By: NRC
Item Type: FIN Finding
Failure to Adequately Control Loose Materials near the Switchyard
A finding of very low safety significance was identified by the inspectors for the licensee's failure to adequately control loose materials next to the 345kV switchyard. Specifically, the inspectors identified tarps next to the switchyard fence. Once this condition was identified, the licensee removed the material from the switchyard area. No violation of regulatory requirements occurred.

The finding was greater than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the loose items could affect the proper operation of the switchyard during periods of high winds. This finding was determined to be of very low safety significance because the finding was not a loss of coolant accident initiator, did not increase the likelihood of a fire or a flood, and did not contribute to the likelihood that mitigating equipment relied upon during a loss of division 2 offsite power sources would not be available. The inspectors determined that the failure to ensure that procedure changes were incorporated in procedures following corrective actions from previous findings also affected the cross-cutting area of PI&R, Corrective Actions (P.1(d)).

Inspection Report# : 2010003 *(pdf)*

Significance: G Apr 05, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to include Turbine Building Heating Ventilation and Air Conditioning Fans in the Scope of the Maintenance Rule Program.
The inspectors identified a finding having very low safety significance with an Non-Cited Violation (NCV) of 10 CFR 50.65(b)(2)(iii), for the licensee's failure to include turbine building heating ventilation and air conditioning (TBHVAC) fans in the scope of their maintenance rule program. Specifically, the licensee failed to effectively control TBHVAC system components condition through the implementation of appropriate preventive maintenance as directed by the requirements of the maintenance rule. The TBHVAC system is used to maintain the turbine building at a negative pressure for radiological considerations and room and area temperature below design limits to prevent a Group 1 Isolation resulting in main steam isolation valves (MSIV) closure and a reactor trip. The licensee entered the issue into their corrective action program for further evaluation.

This finding was more than minor because it was associated with the Initiating Events cornerstone attribute of equipment performance, and affected the cornerstone objective to limit the likelihood of those event that upset plant stability and challenge critical safety functions during shutdown, as well as power operations. This finding is of very low safety significance (Green), because it does not contribute to the likelihood that mitigation equipment or functions will not be available. The inspectors determined there was no cross-cutting aspect associated with this finding because the system was initially scoped out during the initial baseline evaluation for maintenance rule in June 1995 and was not reflective of current performance. (Section 1R21.3.b.(4))
Inspection Report# : 2010006 *(pdf)*

Mitigating Systems

Significance: G Apr 05, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Calculations for Availability of 120kV System Offsite Power
The inspectors identified a finding having very low safety significance with an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for the licensee’s failure to perform adequate calculations to ensure the availability of offsite power. Specifically, on two occasions the licensee failed to perform adequate calculations to demonstrate the availability of 120kV system offsite power. The first occasion was related to the analysis in calculation DC-0919 for conditions when the System Service (SS) Transformer No. 64 load tap changer (LTC) was in service. The second occasion was related to TSR-35286, which analyzed conditions for placing the SS Transformer No. 64 LTC in manual. This finding was entered into the licensee’s corrective action program to revise the calculations and perform an Engineering Functional Analysis (EFA) to demonstrate operability.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of safety-related equipment to respond to initiating events to prevent undesirable consequences. Specifically, there was reasonable doubt as to whether the offsite power supply would remain operable during a design basis event pending re-analysis. This finding is of very low safety significance (Green) because the design deficiency was confirmed not to result in loss of operability or functionality. This finding has a cross-cutting aspect in the area of Human Performance, Resources, because the licensee did not provide a complete, accurate, and up-to-date design documentation, to assure nuclear safety. (IMC 0310, Section 06.01.b.(3) [H.2(c)]) (Section 1R21.3.b.(1))
Inspection Report# : 2010006 *(pdf)*

Significance: G Apr 05, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedures for Controlling Availability of 120kV System Voltage
The inspectors identified a finding having very low safety significance (Green) with an associated NCV of Technical Specifications 5.4.1.a, “Procedures” for the licensee’s failure to translate the design requirements for the availability of the 120kV offsite power into station operating procedures, which are used to control voltages on the offsite power system within acceptable ranges. Specifically, the licensee failed to translate the 2.1 percent switchyard voltage drop criteria assumed in calculation DC-0919 into station operating procedures. This finding was entered into the licensee’s corrective action program to revise the calculations and perform an EFA to demonstrate operability.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of safety-related equipment to respond to initiating events to prevent undesirable consequences. Specifically, the licensee did not ensure the availability of the 120kV power source to 4160V safety buses by implementing procedural controls to ensure that the step voltage decrease on the trip on the Fermi generating unit did not exceed the 2.1 percent value analyzed in calculation DC-0919. This finding is of very low safety significance (Green), because the design deficiency was confirmed not to result in loss of operability or functionality. The inspectors concluded that the cause of the finding was related to the cross-cutting aspect of Human Performance, Resources, because the licensee did not provide complete, accurate, and up-to-date design documentation to assure nuclear safety. (IMC 0310, Section 06.01.b.(3) [H.2(c)]) (Section 1R21.3.b.(3))
Inspection Report# : 2010006 *(pdf)*

Significance: G Apr 05, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Adequate Calculation for DC Short Circuit Analysis
. The inspectors identified a finding having very low safety significance with an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for the licensee’s failure to accurately account for the cable resistance for the reactor core isolation cooling (RCIC) and high pressure core injection (HPCI) dc Motor Operated Valves (MOVs) in the DC short circuit calculation. The issue, along with other related electrical calculational errors, was

entered into the licensee's corrective action program.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of safety-related equipment to respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance (Green) because the design deficiency was confirmed not to result in loss of operability or functionality. The inspectors concluded that the cause of the finding was related to the cross-cutting aspect of Human Performance, Resources, because the licensee did not provide complete, accurate, and up-to-date design documentation to assure nuclear safety. (IMC 0310, Section 06.01.b.(3) [H.2(c)]) (Section 1R21.3.b.(5))
Inspection Report# : 2010006 *(pdf)*

Significance: G Apr 05, 2010
Identified By: NRC
Item Type: FIN Finding
Failure to Adequately Evaluate Industry Operating Experience for Applicability to Fermi 2
The inspectors identified a finding of very low safety significance (Green) for the licensee's failure to adhere to operating experience program procedural requirements. Specifically, the inspectors identified three instances where the licensee failed to adequately evaluate and take appropriate corrective actions on industry operating experience contrary to the requirements in licensee's operating experience Procedure MLS04, Revision 22. Also, based on the inspectors' finding, the licensee performed an extent of condition and identified approximately 30 more operating experience reviews performed within the last two years as less than adequate. No violation of NRC requirements occurred.

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 equipment availability and reliability. Specifically, multiple examples were identified where the licensee failed to ensure that problems identified in industry operating experience were evaluated for applicability to Fermi and corrective actions implemented. This finding is of very low safety significance (Green) because the design deficiency was confirmed not to result in loss of operability or functionality. The inspectors concluded that the cause of the finding was related to the cross-cutting element of Problem Identification and Resolution, Operating Experience, because the licensee failed to systematically collect, evaluate, and communicate to affected internal stakeholders in a timely manner relevant internal and external operating experience to support plat safety. (IMC 0310, Section 06.02.b.(1) [P.2(a)]) (Section 1R21.4.b)
Inspection Report# : 2010006 *(pdf)*

Significance: G Apr 05, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Calculations for Backfit Modifications
. The inspectors identified a finding of very low safety significance (Green) with an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance with two examples, for failing to perform adequate electrical design calculations to support modifications to the degraded voltage protection scheme. The first example involved the failure to analyze motor starting capability based on voltages afforded by the degraded voltage relay scheme. The second example involved the failure to perform conservative calculations to show that spurious grid separation would not occur during accidents due to action of the degraded voltage relays. This finding was entered into the licensee's corrective action program to revise the calculations and perform an EFA to demonstrate operability.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of safety-related equipment to respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to confirm the adequacy of new degraded voltage relay set-points by ensuring motors had adequate voltage to start if safety buses remained connected to offsite power during a LOCA with degraded voltage. In addition, the licensee failed to ensure that spurious grid separation would not occur during accidents due to action of the degraded voltage relays. This finding is of very low safety significance (Green) because the design deficiency was confirmed not to result in loss of operability or functionality. The inspectors concluded that the cause of the finding was related to the

cross-cutting aspect of Human Performance, Resources, because the licensee did not provide complete, accurate, and up-to-date design documentation to assure nuclear safety. (IMC 0310, Section 06.01.b.(3) [H.2(c)]) (Section 1R21.5.b)
Inspection Report# : 2010006 *(pdf)*

Significance: SL-IV Oct 23, 2009
Identified By: Licensee
Item Type: VIO Violation
Failure to Provide Complete Information to the NRC which Impacted Licensing Decisions.
On August 13, 2009, during performance of a self-assessment, the licensee identified that two American National Standards Institute (ANSI) Standard requirements for physical examinations of licensed operators were no longer being administered by Fermi medical personnel. Specifically, olfactory and tactile testing were deleted by a procedure change that was implemented in May 1999. Because the issue affected the NRC=s ability to perform its regulatory function, it was evaluated using the traditional enforcement process. Although licensed operators were subsequently tested and found to have passed the olfactory and tactile tests, this failure had regulatory significance because the incomplete and inaccurate information was provided under a signed statement to the NRC and impacted numerous licensing decisions. This was preliminarily determined to be an apparent violation of 10 CFR 50.9, “Completeness and Accuracy of Information.” No cross cutting aspect was identified for the finding due to the age of the performance deficiency (e.g., 1999).
Inspection Report# : 2009010 *(pdf)*
Inspection Report# : 2009011 *(pdf)*

Barrier Integrity

Significance: G Apr 05, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Motor Starting Voltage Calculations
The inspectors identified a finding of very low safety significance (Green) with an associated NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for failing to perform proper motor starting studies to demonstrate that motors would successfully start when connected to the offsite power supply. This finding was entered into the licensee’s corrective action program to revise the calculations and perform an EFA to demonstrate operability.

The finding was more than minor because it was associated with the Barrier Integrity cornerstone attribute of design control and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, failing to demonstrate that the approved design was adequate to ensure safety-related motors have sufficient voltage to start created a reasonable doubt as to the operability of the control complex hearing ventilation and air-conditioning system needed to provide a radiological barrier for control room personnel during an accident. The inspectors determined that this finding is of very low safety significance (Green) because the radiological function of the control complex was not affected. The inspectors concluded that the cause of the finding was related to the cross-cutting aspect of Human Performance, Resources, because the licensee did not provide complete, accurate, and up-to-date design documentation to assure nuclear safety. (IMC 0310, Section 06.01.b.(3) [H.2(c)]) (Section 1R21.3.b.(2)).
Inspection Report# : 2010006 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Significance: N/A Oct 09, 2009
Identified By: NRC
Item Type: FIN Finding
PI&R Summary.
On the basis of the sample selected for review, the team concluded that implementation of the corrective action program (CAP) at Fermi was generally good. The licensee had a low threshold for identifying problems and entering them in the CAP, however there was less than licensee-expected use of the system by site employees in some departments. Items entered into the CAP were screened and prioritized in a timely manner using established criteria and were properly evaluated commensurate with their safety significance. In general, causes for issues were adequately determined and corrective actions were generally implemented in a timely manner, commensurate with the safety significance. Some issues required reanalysis due to recurrence of the issues, in part, because of less than desired thoroughness of the original analysis and less than desired effectiveness of original corrective actions. The team noted that the licensee reviewed operating experience for applicability to station activities. Audits and self-assessments were determined to be performed at an appropriate level to identify deficiencies. On the basis of interviews conducted during the inspection, workers at the site expressed freedom to raise safety concerns through their supervisors, through the employee concerns program, or by use of the CAP. Some interviewees stated that the CAP was less than effective for resolving issues of low significance.
Inspection Report# : 2009007 *(pdf)*

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