

McGuire 1

2Q/2010 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Risk Assessment Associated With 1EVIB Troubleshooting Activities

•Green. The inspectors identified a non-cited violation (NCV) of 10 CFR 50.65(a)(4) for an inadequate risk assessment prior to performing maintenance troubleshooting activities on the 120VAC Vital Instrument & Control (I&C) Power System. The troubleshooting activities resulted in the unavailability of one channel of the 120VAC Vital I&C Power system which had not been adequately considered in the risk assessment. Specifically, before aligning the AC vital bus and cross-tying the DC vital busses, the licensee did not adequately evaluate the increase in risk of losing 120VAC vital bus 1EKVB. The licensee entered this issue into their corrective action program as PIP M-10-03700 and plans to re-evaluate the deterministic electronic risk assessment tool against the actual PRA risk for the loss of a single vital 120VAC bus.

The finding is more than minor because it was similar to example 7(f) of IMC 0612, Appendix E, in that it involved the failure to perform an adequate risk assessment prior to performing troubleshooting activities on a safety related system where the outcome of the risk assessment would have resulted in an increase in the licensee's risk management category (from Green to Red), and therefore would have required additional risk management actions. The inspectors determined it to be of very low risk significance (Green) because the Risk Deficit during the timeframe that the 120VAC Vital I&C bus was removed from service was calculated by the licensee to be less than 1.0E-6. This finding is associated with the cross-cutting aspect of appropriate planning of work activities in the work control component of the Human Performance cross-cutting area [H.3(a)] in that the licensee did not adequately incorporate risk insights prior to performing troubleshooting activities. (Section 1R13)

Inspection Report# : [2010003](#) (*pdf*)

Significance: SL-IV Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to adequately update the UFSAR for FPP documents incorporated by reference

The inspectors identified a non-cited violation (NCV) for the failure to update the Updated Final Safety Analysis Report (UFSAR) as required by 10 CFR 50.71(e) for the Fire Protection Program (FPP) documents that were incorporated by reference. This issue is in the licensee's corrective action program as Problem Investigation Process Report (PIP) M-10-0655. The licensee intends to either provide the required updates to the referenced documents or incorporate the FPP directly into the UFSAR.

The updated information for the UFSAR was important because it identified the elements of the FPP, fire hazards analysis, and safe shutdown analysis that are a portion of the basis for the FPP. This issue was considered as traditional enforcement because it had the potential for impacting the NRC's ability to perform its regulatory function. This issue is not minor because not having an updated portion of the UFSAR hinders the licensee's ability to perform adequate 50.59 evaluations and can impact the NRC's ability to perform adequate regulatory reviews for license amendments and inspections. Consequently, it can have a material impact on licensed activities. This issue was considered to meet the criteria for a severity level IV violation in Supplement I of the NRC Enforcement Policy because the information was not used to make an unacceptable change to the facility or procedures. This violation was

not screened for associated cross-cutting aspects because it dealt with traditional enforcement. (Section 1R05)

Inspection Report# : [2010002](#) (pdf)

Significance: G Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to adequately implement the Fire Protection Program (FPP) for the Standby Shutdown System (SSS)

The inspectors identified a Green NCV of the FPP required by 10 CFR 50.48 and License Condition 2.C.4 for failing to take adequate design control measures associated with the addition of the standby shutdown system (SSS) for both Units. Specifically, the licensee failed to include a fire hazards analysis (FHA) in the FPP for the SSS, and failed to enter the SSS into the quality assurance program (QAP). The licensee performed a functionality assessment for the area where the SSS is located. The licensee intends to add the SSS to the FHA and the QAP. In addition, any previous modifications made to the SSS will be reviewed and corrective action taken as appropriate.

The performance deficiency was greater than minor because it affected the Mitigating Systems Cornerstone objective of availability, reliability, and capability of the post-fire safe shutdown (SSD) systems and is associated with the design control and protection against external factors (fire) attributes. Specifically, there was no FHA that demonstrated the availability and capability that at least one SSD train would be free of fire and capable of performing safe shutdown as required by 10 CFR 50.48, (a)(2)(iii). The issue was determined to be of very low safety significance (Green) using IMC 0609, Appendix F, Attachment 1, based on the fact that the categories of Fire Prevention and Administrative Controls, and post-fire SSD, were evaluated as having low degradation. There was no cross-cutting aspect associated with this performance deficiency because it was not representative of current licensee performance. (Section 1R18)

Inspection Report# : [2010002](#) (pdf)

Significance: G Mar 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to flow test nuclear service water "A" train standby nuclear service water pond (SNSWP) supply header at maximum design.

A self-revealing Green NCV of 10 CFR 50, Appendix B, Criterion XI, Test Control, was identified for the licensee's failure to flow test the Nuclear Service Water System (NSWS) "A" Train Standby Nuclear Service Water Pond (SNSWP) unit common supply header at maximum design flow. The licensee entered this issue into their corrective action program as PIP M-09-2216 and has taken corrective actions to increase the minimum required flow velocity, frequency, and duration of the "A" Train SNSWP unit common supply header test procedure.

The finding was more than minor because it affected the cornerstone attributes of "protection against external events" and "equipment performance" and the Mitigating Systems objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, inadequate flushing of the "A" Train SNSWP unit common supply header led to ineffective flushes and the accumulation of corrosion products which challenged the design function of the NSWS system. This finding was evaluated using IMC 0609, Attachment 4, Phase I - Initial Screening and Characterization of Findings, to determine the safety significance. Since the finding was related to a seismic initiating event, a Phase III was required to be performed by an NRC Senior Risk Analyst. The Phase III analysis calculated the risk increase to be less than 1E-7 for both conditional core damage probability and conditional large early release probability, resulting in a determination of very low risk significance (Green). This performance deficiency was associated with the cross-cutting aspect of complete, accurate and up-to-date design documentation and procedures [H.2(c)] as described in the Resources component of the Human Performance cross-cutting area. (Section 4OA3.1)

Inspection Report# : [2010002](#) (pdf)

Significance: SL-IV Sep 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to adequately update the UFSAR for emergency diesel fuel oil storage tank requirements (Section 1R22)

The inspectors identified a Severity Level IV non-cited violation (NCV) of 10 CFR 50.71(e) for failure to adequately update the Updated Final Safety Analysis Report (UFSAR) for a license amendment to the emergency diesel generator (EDG) fuel oil storage tank requirements. The licensee intends to revise the UFSAR to reflect the licensing basis described in the license amendment and is developing procedural guidance for cross-connecting the fuel oil storage tanks.

This finding was considered as traditional enforcement because it had the potential for impacting the NRC's ability to perform its regulatory function. The inspectors used the NRC Enforcement Policy, Supplement I, to determine that the issue was more than minor because not including the new licensing basis for the safety-related fuel oil storage tanks in the UFSAR would have a material impact on licensed activities associated with this equipment. This issue was considered a Severity Level IV violation because the inaccurate information was not used to make an unacceptable change to the facility. No cross-cutting aspect was identified. (Section 1R22)

Inspection Report# : [2009004](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Significance:  Dec 21, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Biennial exercise was not an adequate test

The inspectors identified a Green NCV of 10 CFR50.47(b)(14) for failure to conduct a biennial exercise that was technically accurate and challenging, to the extent that it was not an adequate test of the plans, procedures, equipment, and implementation of the licensee's emergency response capabilities. The licensee entered the deficiency into their corrective action program, as Problem Investigation Process (PIP) M-09-04560, M-09-05183, and M-09-05186, and planned to conduct a re-demonstration drill in May 2010. This finding is greater than minor because it is associated with the Emergency Response Organization Performance attribute of the Emergency Preparedness Cornerstone, in that a biennial exercise that is not technically accurate and challenging is not an adequate test of the plans, procedures, equipment, and implementation of the licensee's emergency response capabilities. The finding does not represent an immediate safety concern. This finding was evaluated using the Emergency Preparedness SDP and determined to be a finding of very low safety significance because there was no loss of planning standard function. The cause of the finding was directly related to the cross-cutting component of work practices in the area of Human Performance, because the licensee did not ensure the supervisory and management oversight of work activities supported nuclear safety [H.4(c)]. (Section 1EP1)

Inspection Report# : [2009501](#) (*pdf*)

Occupational Radiation Safety

Significance:  Jun 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to barricade, conspicuously post, and adequately control access to a HRA

•Green. A self-revealing NCV of TS 5.7.1 was identified for the failure of the licensee to barricade, conspicuously

post, and adequately control access to a high radiation area (HRA). Specifically, on September 17, 2009, a crane flagman on a Radiation Work Permit (RWP) that did not allow access to a HRA, inadvertently entered an unposted but guarded transient HRA and recorded an electronic dosimeter (ED) dose rate alarm at 128 mrem/hr. The worker was unable to hear the alarm due to wearing a headset and not wearing an auxiliary alarm device as specified in station procedures for HRA entries. The worker had been briefed to not enter the area when an irradiated instrument was on the floor and that the guard would prevent his entering the area. The guard was not positioned to prevent entry into the area and did not detect the flagman entering the area until he had already passed the source. The licensee entered this issue into their corrective action program as PIP M-10-05506.

The finding is greater than minor because it is associated with the cornerstone attribute of exposure control and affected the Occupational Radiation Safety Cornerstone objective of ensuring the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation because it resulted in unplanned or unintended radiation dose. The finding was determined to be of very low safety significance (Green) because it was not an ALARA finding or overexposure, did not have a substantial potential for overexposure, and did not compromise the ability to assess dose. The cause of the finding was directly related to the cross-cutting aspect of radiological safety in the work control component of the Human Performance area because the licensee did not adequately control the areas as a HRA. [H.3(a)] (Section 2RS1).

Inspection Report# : [2010003](#) (*pdf*)

Significance:  Sep 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to properly calibrate area radiation monitors (Section 2OS3)

The inspectors identified a Green non-cited violation (NCV) of 10 CFR 20.1501(b) for the licensee's failure to ensure that area radiation monitors (ARMs) used for quantitative measurements were calibrated. The licensee failed to complete the detector sensitivity verification with an appropriate radioactive source during the previous two calibrations of the reactor coolant (NC) filter area ARMs. The licensee initiated Problem Investigative Process (PIP) M-09-4036 to evaluate this issue.

The finding is greater than minor because it was associated with the Occupational Radiation Safety cornerstone attribute of Plant Facilities/Equipment and Instrumentation and adversely affected the cornerstone objective in that the failure to properly calibrate the ARMs could compromise the evaluation of radiological hazards causing unintended dose to radiation workers. The finding was determined to be of very low safety significance (Green) because it was not related to ALARA planning, did not involve an overexposure or substantial potential for overexposure, and did not compromise the ability to assess dose. The finding had a cross-cutting aspect of "maintaining long term plant safety" in the area of Human Performance, under the Resources component, because the licensee did not ensure procedures and other resources were available and adequate to assure nuclear safety by maintenance of design margins (i.e. appropriate calibration) and minimization of preventative maintenance deferrals (i.e. allowing for critical steps to be marked N/A, effectively deferring the calibration until the next calibration cycle) [H.2(a)]. (Section 2OS3).

Inspection Report# : [2009004](#) (*pdf*)

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

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