# McGuire 2
# 1Q/2007 Plant Inspection Findings

---

## Initiating Events

**Significance:** G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to identify and evaluate multiple boric acid leaks.**
Green. The inspectors identified a non-cited violation (NCV) of 10CFR50, Appendix B, Criterion V, Instructions, Procedures and Drawings. Licensee activities affecting quality were not accomplished in accordance with site procedures, in that, the licensee failed to adequately evaluate multiple boric acid leaks on safety related components. These site procedures required plant personnel to identify, document, and evaluate all evidence of boric acid leakage. The licensee immediately entered the improperly evaluated leaks into their corrective action system, and completed an initial operability review.

This finding is greater than minor because if the failure to properly evaluate boric acid leaks continued, then unidentified / unevaluated degradation of the reactor coolant pressure boundary or other, susceptible, safety related components could continue and lead to a more significant safety concern. This finding was determined to be of very low safety significance based on the IMC 0609, Appendix A, Phase 1 SDP worksheet. The finding screened as Green because leakage of boric acid is characterized as a Loss of Coolant Accident (LOCA) initiator, but the identified leakage did not contribute to the increased likelihood of a primary or secondary LOCA, and the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. The violation is associated with the Work Practices Component of the Human Performance cross-cutting area in that the licensee did not define and effectively communicate expectations regarding compliance with the boric acid corrosion control program procedures.
Inspection Report# : 2006005 *(pdf)*

**Significance:** G Oct 06, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to monitor the off-site power system under 10 CFR 50.65 a(1).**
An NRC-identified NCV was identified for the licensee’s failure to establish goals and monitor the performance of the offsite power system per 10 CFR 50.65a(1). The licensee reclassified the offsite power system (OSP) from a(1) status to a (2) status without having monitored system performance against established goals, or documenting a technical justification to demonstrate that monitoring under a(1) was not required because the system performance was being effectively controlled such that it remained capable of performing its intended function. This finding is in the licensee’s corrective action program as Plant Investigation Process (PIP) M-06-3218.

The finding is more than minor because, in accordance with MC 0612, Appendix E, Examples of Minor Issues and Enforcement Manual section 8.1.11, Maintenance Rule a(1) and a(2) violations are not minor because they involve structures, systems, and components (SSCs) that have demonstrated some degraded performance or condition. The finding is of very low safety significance because there was no design deficiency, the finding did not represent an actual loss of a safety function, nor does this involve a risk significant system for mitigating fire, flood, seismic, or severe weather events.

Inspection Report# : 2006004 *(pdf)*

---

## Mitigating Systems

**Significance: SL-IV** Oct 06, 2006
Identified By: NRC

Item Type: NCV NonCited Violation
**Failure to adequately correct UFSAR deficiencies for the SSF.**
A non-cited violation (NCV) was identified for failing to take adequate corrective action for the last Updated Final Safety Analysis Report (UFSAR) which did not include all the important information for the standby shutdown facility (SSF), the subject of two previous NCVs. The UFSAR did not include that the turbine-driven auxiliary feedwater (TDAFW) pump suction condenser circulating water makeup source was isolated by two dc power-operated valves which open automatically on low pump suction pressure, even though it was important information to demonstrate required system power source and suction supply diversity. This finding is in the licensee's corrective action program as Plant Investigation Process (PIP) M-06-3240.

This finding is more than minor because it had the potential for impacting the NRC's ability to perform its regulatory function and had a material impact on licensed activities. The inadequate UFSAR information had been used in a 10 CFR 50.59 screening that resulted in not performing a safety evaluation when required, to determine whether prior NRC approval was needed. This issue was considered as traditional enforcement and was characterized as a Severity Level IV. The failure to adequately update the UFSAR for the SSF was the subject of two previous violations (NCVs 05000369,370/2004003-02, and NCV 05000369,370/2005004-01 for untimely corrective action). The cause of the finding is related to the cross-cutting area of Problem Identification and Resolution because the licensee failed to thoroughly evaluate similar problems such that the extent of condition was considered and the cause resolved to prevent recurrence.
Inspection Report# : 2006004 *(pdf)*

**Significance: SL-IV** Oct 06, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to adequately update the UFSAR for station blackout.**
An NRC-identified NCV was identified for failure to adequately update the Updated Final Safety Analysis Report (UFSAR) for the station blackout rule (10 CFR 50.63) implementation. Some station blackout (SBO) mitigating equipment described in the submitted information and analysis have been changed, and because they were not contained in the UFSAR, were not evaluated under 10 CFR 50.59 for their effect on station blackout mitigation, to determine whether prior NRC approval was needed. This finding is in the licensee's corrective action program as Plant Investigation Process (PIP) M-06-3244.

The finding is more than minor because it had a material impact on licensed activities. The missing UFSAR information identified the systems and methodology used to combat a station blackout as described in the station blackout rule. 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 was considered to meet the criteria for a severity level IV violation. The cause of the finding is related to the cross-cutting area of Problem Identification and Resolution because the licensee failed to thoroughly evaluate similar problems such that the extent of condition was considered and the cause resolved to prevent recurrence.
Inspection Report# : 2006004 *(pdf)*

**Significance:**  May 19, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Effect of EDG under-frequency not included in ECCS pump test acceptance criteria**
Green. The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. The licensee did not account for emergency diesel generator underfrequency in test acceptance criterion for ASME Section XI testing of the high head safety injection (NV) pumps 1A and 1B. The licensee entered this issue into the corrective action program and performed an operability assessment which determined that the pumps were operable.
This finding is more than minor because it affected the design control attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance because although the NV pump acceptance criteria were not conservative with respect to the safety analyses, these analyses had sufficient margin to compensate for the reduced pump performance if operated at the reduced-frequency. (Section 1R21.2.1.5)
Inspection Report# : 2006007 *(pdf)*

**Significance:** G May 19, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Maximum differential pressure for containment sump isolation valves.**
Green. The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. The licensee did not evaluate the impact of leakage past the pressure isolation check valves during low head safety injection (ND) pump operation in minimum flow (for a pump test or during a small break loss of coolant accident (SBLOCA)), in determining the maximum differential pressure (dP) across the containment sump isolation motor operated valves (MOVs). This leakage could potentially increase pressure which may challenge the capability of these MOVs to open following a SBLOCA. The licensee entered this finding into the corrective action program with an action to implement a modification to install ND suction relief valves on both units to address long term operability.

This finding is more than minor because it affected the design control attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was determined to be of very low safety significance because the analysis of additional test data showed that the maximum dP at the containment sump isolation valves was less than the thrust capability of the valve actuators. (Section 1R21.2.1.6)
Inspection Report# : 2006007 *(pdf)*

**Significance:** G May 19, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Valve positioner not analyzed for seismic requirements**
Green. The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. The licensee did not evaluate potential failure of the non-safety related valve positioner in the safety related nuclear service water valves, and the impact of the failure on the capability of the valves to perform their design function following a seismic event. The licensee entered this issue into the corrective action program with actions to pursue a long term engineering resolution.
This finding is more than minor because it affected the design control attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance (Green) because the design/qualification deficiency would not result in a loss of function. The licensee determined that adequate loads existed to prevent damage to both nuclear service water pumps if the corresponding flow control valves were to fail closed. The nuclear service water pump vendor provided documentation which indicated that the pumps could satisfactorily operate at flow rates below the minimum flow value for up to two hours without sustaining damage, which was considered adequate time to detect and respond to the problem before pump damage occurred. (Section 1R21.2.1.12)
Inspection Report# : 2006007 *(pdf)*

**Significance:** G May 19, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Effect of post-accident elevated temperatures not analyzed for nuclear service water piping inside containment**
Green. The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. The licensee did not perform an analysis or use other means to demonstrate that the non-safety related nuclear service water system piping inside containment, which was credited in emergency procedures for post-accident mitigation,

was qualified for the elevated temperatures predicted for a loss of coolant accident or main steam line break inside containment. The licensee entered this issue into the corrective action program with actions to revise the affected procedures and evaluate the affected systems.
This finding is more than minor because it affected the design control attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance (Green) because the design deficiency did not result in an actual loss of function. The non-safety related portion of the nuclear service water system is designed to isolate on a loss of coolant accident signal. Post-accident realignment of the system would be required in order to create the scenario where the piping could be exposed to the potentially elevated temperatures/pressures. (Section 1R21.2.1.14)
Inspection Report# : 2006007 *(pdf)*

---

## Barrier Integrity

**Significance:** G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to implement adequate design and test control for ice condenser lower inlet doors.**
Green. The inspectors identified a Green non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, Design Control, and Criterion XVI; Test Control, for the licensee's failure to have design documentation to support the ice condenser lower inlet door surveillance procedure test acceptance limits The licensee subsequently received the supporting information from the vendor and incorporated it into the UFSAR, Technical Specifications and surveillance procedures.

The inspectors determined that the licensee's failure to have design documentation that supported the acceptance criteria contained in the T.S. surveillance procedures used to test the ice condenser's lower inlet doors at the 40-degree open position was a performance deficiency. The requirement to maintain design bases documentation for tests performed on safety-related SSC's is contained in 10CFR50, Appendix B, Criterion III. The requirement to implement a test program that incorporates the design basis for these components is contained in 10CFR50, Appendix B, Criterion XI. The issue was determined to be more than minor because an excessively high closing torque could adversely impact the ability of the lower inlet door to modulate properly in the event of a small-break LOCA; however, with no lower limit defined in the surveillance test's acceptance criteria, this condition might not have been identified and corrected prior to returning the unit to power operation. The finding is associated with the Barrier Integrity cornerstone and affected the integrity of the reactor containment structure; i.e., the ice condenser's ability to control internal pressure following a LOCA event, and protect the public from radio-nuclide releases. The cause of this issue is related to the cross-cutting area of Human Performance-Resources, because the licensee failed to maintain complete, accurate, and up-to-date design documentation and procedures.
Inspection Report# : 2006005 *(pdf)*

---

## Emergency Preparedness

---

## Occupational Radiation Safety

---

## Public Radiation Safety

**Significance:** G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to conduct adequate QA activities to ensure waste shipments are characterized in accordance with 10 CFR 61.55.**
Green. The inspectors identified a non-cited violation (NCV) of 10 CFR 20 Appendix G, Section III.A.3 for failure to conduct adequate Quality Assurance (QA) activities to ensure compliance with the waste characterization requirements of 10 CFR 61.55. The NCV included three examples: the failure to analyze for required plutonium isotopes in a primary filter waste stream sample analyzed on April 15, 2005; the failure to account for differences between licensee and vendor analyses of Cerium-144 in a spent fuel pool cooling (KF) filter waste stream sample collected February 25, 2004; and the failure to account for differences between licensee and vendor analysis results for Cesium-137 in a chemical and volume control (NV) filter waste stream sample dated February 25, 2004. The failure to identify missing or anomalous isotope values could have resulted in the potential shipment of improperly characterized radioactive waste to a licensed burial site or waste processor.

These examples are more than minor because they adversely affect the program and process attributes of the Public Radiation Safety cornerstone, in that they involve an occurrence in the licensee's radioactive material transportation program that is contrary to NRC regulations. The finding was determined to be of very low safety significance because none of the reviewed waste stream data had been used to characterize waste that had been shipped to an offsite licensed burial or processing facility.
Inspection Report# : 2006005 *(pdf)*

**Significance:** G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to train HAZMAT employees.**
An NCV of 10 CFR 71.5 and 49 CFR172.704(a) was identified for failure to provide required training to hazardous material (Hazmat) employees involved in the preparation and loading of packages containing radioactive material for public transport. Specifically, inspectors identified that two individuals involved in the preparation and closure of a Department of Transportation (DOT) Type A Specification Package on September 6, 2005 had not received the required Hazmat training.

This violation is more than minor because it adversely affects the program and process attributes of the Public Radiation Safety cornerstone, in that it involves an occurrence in the licensee's radioactive material transportation program that is contrary to NRC regulations. The violation was determined to be of very low safety significance because the shipment in question did not result in a breach of package or loss of licensed material during transport.
Inspection Report# : 2006005 *(pdf)*

---

# Physical Protection

Physical Protection information not publicly available.

---

# Miscellaneous

**Significance: SL-IV** Oct 06, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to perform 72.48 evaluations for 72.212 changes.**
An NRC-identified non-cited violation of 10 CFR 72.212 was identified for failing to evaluate changes to the written evaluations required by 72.212(b)(2) using the requirements of 72.48(c). Even though licensee procedure NSD 211, 10 CFR 72.48 Process, required that one be performed, the licensee had not performed any 72.48(c) evaluations for any

changes to the 72.212(b)(2) written evaluations for the NAC-UMS casks or the TN-32 casks since the requirement was included in the rule (5 revisions). This finding is in the licensee's corrective action program as Plant Investigation Process (PIP) M-06-3729.

This issue is greater than minor because the failure to perform 72.48(c) evaluations on any changes to 72.212 written evaluations had a reasonable likelihood that the changes could require NRC review and approval. This issue was considered as traditional enforcement because it had the potential for impacting the NRC's ability to perform its regulatory function and was characterized as a Severity Level IV violation.
Inspection Report# : 2006004 *(pdf)*

Last modified : June 01, 2007