

Three Mile Island 1

4Q/2003 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify, Document, and Evaluate Conditions Adverse to Quality which had the Potential to Adversely Affect ECCS Containment Sump Availability

The inspectors identified a non-cited violation for failure to identify, document, and assess conditions adverse to quality which had the potential to adversely affect emergency core cooling system (ECCS) containment sump availability. The inspectors observed numerous sources of debris within containment and sump screen conditions which had the potential to degrade ECCS performance. Station personnel saw most of these same conditions, but did not document or assess the associated impact on containment sump operability until the issue was raised by the inspectors. Failure to recognize and evaluate screen blockage and sources of continued debris within containment could lead to further containment sump degradation and make ECCS systems inoperable.

This finding affected the mitigating systems cornerstone and is more than minor because it had the potential to adversely impact equipment availability and reliability for multiple ECCS systems which are designed to respond to initiating events to prevent undesirable consequences (i.e., core damage). The finding was of very low safety significance (Green) because subsequent engineering evaluations concluded that the adverse sump conditions would not cause an actual loss of safety function.

Inspection Report# : [2003005\(pdf\)](#)

Significance:  Aug 26, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Inadvertent Borated Water Storage Tank Drain Down

A self-revealing, non-cited violation of technical specification 6.8.1.a was identified for plant operators' failure to follow procedures for applying a clearance isolation boundary on the "A" spent fuel pool cooling train. This resulted in the inadvertent draindown of the borated water storage tank (BWST) to the spent fuel pool and unplanned entry into a technical specification limiting condition for operation for BWST inventory with the plant operating at 100 percent power.

This finding is more than minor because, if left uncorrected, it could have resulted in a more significant safety concern in that BWST inventory could have become less than required to support emergency core cooling system operability. The finding affected the reliability of the safety injection functions under the mitigating systems cornerstone and is of very low safety significance because control room operators took immediate corrective action to restore BWST inventory within the technical specification limiting condition for operation allowed outage time.

Inspection Report# : [2003004\(pdf\)](#)

Significance: N/A Jun 28, 2003

Identified By: NRC

Item Type: FIN Finding

Failure to Document a Temporary Modification to a Floor Drain Flood Barrier in the River Water Pump House

The inspectors identified a finding where AmerGen failed to evaluate the adequacy of, and ensure proper administrative controls were in place for, a temporary inflatable plug installed in a river water pump house floor drain flood barrier. The inflatable plug was later found deflated and unable to function as a flood protection barrier. The temporary plug was needed because the floor drain standpipe, which serves as the permanent flood barrier, was broken off during maintenance activities.

The finding is greater than minor because, in the event of a maximum probable flood, the operability of safety-related equipment in the river water pump house would have been challenged. The finding, which is under the mitigating systems cornerstone, is of very low safety significance because, the nonexistent flood protection barrier would not have resulted in a plant trip or a complete safety system failure.

Inspection Report# : [2003003\(pdf\)](#)

Significance:  Jun 28, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Report Changes in Medical Status of Licensed Operators as Required by 10 CFR 50.74

The inspectors identified a non-cited violation of 10 CFR 50.74 for three instances in which the licensee had identified potentially disqualifying medical conditions in regard to licensed operators, but did not report these conditions to the NRC within 30 days because of lack of understanding of the reporting requirement. The violation is of very low safety significance because no license restrictions were found necessary when the conditions were reported and reviewed by the NRC medical review officer.

Inspection Report# : [2003003\(pdf\)](#)

Barrier Integrity

Significance:  Dec 31, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Evaluate and Correct Reactor Coolant System Pressure Boundary Leak in a Timely Manner

A self-revealing non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified for failure to identify and correct reactor coolant system (RCS) pressure boundary leakage in a timely manner. Failure to identify the leakage during the previous refueling outage resulted in continued RCS barrier degradation and power operation from November 2001 until October 2003 with non-isolable RCS strength boundary leakage.

The issue is more than minor because it adversely affected the barrier integrity cornerstone in that it reduced the likelihood that the physical RCS design barrier would protect the public from radio nuclide releases. In addition, if left uncorrected, the issue could become a more significant safety concern (i.e., RCS inventory loss). The inspectors determined this finding is of very low safety significance (Green) because the RCS leakage was small, the likelihood of a rapid increase in RCS leak rate was small due to the robust cover plate design, the remaining mitigation functions

were unaffected, and the containment barrier remained fully functional to prevent radio nuclide release to the public.
Inspection Report# : [2003005\(pdf\)](#)

Significance:  Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify and Correct Boric Acid Corrosion of Reactor Building Containment Liner and Protective Moisture Barrier

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for failure to implement proper corrective actions to prevent corrosion of the containment liner. The corrosion resulted in reduced liner wall thickness that exceeded the ASME XI acceptance criteria.

This issue affected the barrier integrity cornerstone and is more than minor because the condition impacted configuration control in that containment barrier wall thickness design parameters were not maintained. In addition, if left uncorrected, the condition could have affected the availability and reliability of the safety-related containment liner to protect the public from radio nuclide release. This finding is of very low significance since the issue did not involve an actual open pathway in the physical integrity of the containment.

Inspection Report# : [2003005\(pdf\)](#)

Significance:  Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain Structural Design Clearances Inside Reactor Building Containment

The inspectors identified a non-cited violation for failure to comply with 10 CFR 50, Appendix B, Criterion X, "Inspection." This violation involved the installation of a floor grating for a permanent structure inside the containment that did not meet the required separation distance to the containment liner per structural drawing 421054. Station personnel failed to identify this degraded condition during containment inspections. The inadequate structural clearance increased the likelihood that the safety-related containment liner would be damaged during a postulated seismic event.

This finding affected the barrier integrity cornerstone and is more than minor because the condition impacted configuration control in that the containment design parameter for clearance between structures and the containment liner was not maintained. In addition, if left uncorrected, the condition could have affected the availability and reliability of the safety-related containment liner to protect the public from radio nuclide release. The finding is of very low safety significance because the issue did not involve an actual open pathway in the physical integrity of the containment.

Inspection Report# : [2003005\(pdf\)](#)

Significance:  Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Properly Perform Reactor Building Engineering Containment Coating Inspections

The inspectors identified a non-cited violation of technical specification 6.8.1.a for failure to properly perform inspections to assess the overall health of coatings inside the containment as required by procedure EP-055T. This issue reflected deficient human performance and problem identification because the applicable station procedure was not used and numerous existing degraded containment coating conditions were not identified. The inspectors subsequently identified various degraded containment coating issues. Corrective actions included a complete reinspection of containment coatings, which resulted in identification and evaluation of 127 coating indications.

This finding is greater than minor because it affected the barrier integrity cornerstone and if left uncorrected, the condition could have degraded further and affected the operability of the safety-related containment sump and liner. The finding is of very low safety significance since the issue did not involve an actual open pathway in the physical integrity of the containment or an actual blockage of the containment sump.

Inspection Report# : [2003005\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Last modified : March 02, 2004