

Three Mile Island 1

2Q/2004 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Jun 30, 2004

Identified By: Self Disclosing
Item Type: NCV NonCited Violation

Failure to Identify Abnormally High River Pump Vibrations

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action. On March 9, 2004, AmerGen did not recognize that vibration levels on the 1C Nuclear River (NR) Pump (NR-P-1C) motor exceeded predictive maintenance program alert levels. The failure to recognize the elevated vibration resulted in the inoperability of the pump. The pump shaft and bearings were ultimately replaced.

This self-revealing finding is more than minor since the failure to take timely action reduced the reliability and availability of a mitigating systems component. Corrective action to address the slowly degrading motor bearings could have been commenced prior to the vibration levels exceeded the fault level. This finding was determined to be of very low safety significance because at least two NR pumps remained available.

Inspection Report# : [2004003\(pdf\)](#)

Significance:  Mar 31, 2004

Identified By: NRC
Item Type: FIN Finding

Inability of 25 Percent of the Crews to Pass the Dynamic Simulator Portion of the Facility-Administered Annual Operating Examinations

A finding of very low safety significance was identified. The finding was associated with operating crew performance on the simulator during facility-administered licensed operator requalification examinations. Of the eight crews evaluated, two did not pass their simulator examinations. The finding is of very low safety significance because the failures occurred during annual testing of the operators on the simulator, because there were no actual consequences to the failures, and because the crews were removed from watch-standing duties, refrained and re-evaluated before they were authorized to return to control room watches.

Inspection Report# : [2004002\(pdf\)](#)

Significance:  Mar 31, 2004

Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Follow Scaffolding Installation Procedures

The inspectors identified a non-cited violation (NCV) of technical specification 6.8.1.a for inadequate implementation of scaffold control requirements and for not performing engineering evaluations as required by procedures MA-MA-796-024-1001 and LS-AA-104-1000. The procedural violations resulted in scaffold construction deviations that were not evaluated for adequacy by engineering to ensure that safety related equipment would not be adversely impacted by the scaffold during a seismic event. The finding is of very low safety significance since no equipment was rendered inoperable due to the scaffolding, and the scaffolding would not have caused a loss of any safety function during or following a seismic event.

Inspection Report# : [2004002\(pdf\)](#)

Significance:  Mar 31, 2004

Identified By: NRC
Item Type: NCV NonCited Violation

Lack of Assurance that Each Section of the Operating Exam is at Least 50 Percent Unique Compared to any Other Operating Exam Administered During the Same Cycle

An NCV was identified for non-adherence to an established Exelon/AmerGen licensed operator requalification test (LORT) program procedure that provided guidance for satisfying the requirements of 10 CFR 55.59 in the development of the Senior and Reactor Operator 2004 annual requalification exams.

The finding is greater than minor because the Performance Deficiency (PD) affected the mitigating systems cornerstone objective to ensure mitigating system reliability and availability, and its related attribute on human performance (Human Error (Pre-Event and Post-Event)). The finding is of very low safety significance because the discrepancy did not have an adverse impact on the operator's ability to safely operate the plant this past year and there were no identified concerns regarding exam compromise.

Inspection Report# : [2004002\(pdf\)](#)

Significance:  Mar 31, 2004
Identified By: NRC

Item Type: NCV NonCited Violation

Lack of Documentation of Adequate Remediation Plans for Senior Reactor Operators and Reactor Operators

An NCV was identified for non-adherence to an established Exelon/AmerGen licensed operator requalification program procedure for documenting remediation plans for Senior and Reactor Operators developed as a result of failures on 2003 biennial written and annual operating exams and as required by 10 CFR 55.59(c)(5).

The finding is greater than minor because the performance deficiency affected the mitigating systems cornerstone objective to ensure mitigating system reliability and availability, and its related attribute on human performance (Human Error (Pre-Event and Post-Event)). The finding is of very low safety significance because the discrepancy did not have an adverse impact on the operator's ability to safely operate the plant this past year.

Inspection Report# : [2004002\(pdf\)](#)

Significance:  Mar 31, 2004
Identified By: NRC

Item Type: NCV NonCited Violation

Simulator Did Not Replicate Expected Plant Response to Steady State Conditions

An NCV was identified for simulator modeling discrepancies that should have been identified and corrected during required steady state performance testing as required by ANSI/ANS 3.5-1985 and 10 CFR 55.46.

This finding is more than minor because it affects the human performance (human error) attribute of the mitigating systems cornerstone. The finding is of very low safety significance because the discrepancy did not have an adverse impact on operator actions such that safety-related equipment was made inoperable during normal operations or in response to a plant transient.

Inspection Report# : [2004002\(pdf\)](#)

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\(pdf\)](#)

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

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

Miscellaneous

Last modified : September 08, 2004