

Crystal River 3

1Q/2004 Plant Inspection Findings

Initiating Events



Significance: Mar 27, 2004

Identified By: Self Disclosing

Item Type: FIN Finding

Loss of Design Control When an Improper Circuit Card Placed in the Integrated Control System Caused a Reactor Trip

A self-revealing Green finding was identified for a loss of design control during maintenance on the integrated control system which later resulted in a reactor trip.

This finding is more than minor because it affected the configuration control attribute of the initiating event cornerstone and resulted in an event that upset plant stability and challenged critical safety functions. The issue was of very low safety significance because although there was a reactor trip, mitigating systems remained available and were not affected. Because no safety systems were affected, the finding did not involve a violation of regulatory requirements. The cause of the finding involved the cross-cutting element of human performance. (Section 4OA3.1)

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



Significance: Dec 27, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Correctly Perform the Magnetic Particle Calibration

The inspector identified a non-cited violation of Technical Specification 5.6.1.1 for failure to follow procedural requirements involving incorrect calibration of a magnetic particle testing (MT) yoke. This finding could have inhibited the identification of indications or flaws on American Society of Mechanical Engineers (ASME) Class 2 Safety-Related Feed Water to Once Through Steam Generator (OTSG) "A" piping.

This finding is more than minor because if left uncorrected, it could result in a more significant safety concern. Failure to correctly perform the calibration could reduce the ability to discover indications or flaws which could lead to pipe breaks. The issue was determined to be of very low safety significance because the likelihood of a loss of coolant accident (LOCA) initiator was not affected, the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not have available, and the finding did not increase the likelihood of a fire or flood. (Section 1R08)

Inspection Report# : [2003006\(pdf\)](#)

Mitigating Systems



Significance: Sep 27, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Maintain Two Operable Control Complex Cooling Trains

A self-revealing non-cited violation of Crystal River 3 Technical Specification 3.7.18 was identified. Following Train B chiller maintenance on December 19, 2002, and Train A chiller maintenance on February 25, 2003, neither train of control complex cooling was operable because control complex chiller motor overload relays had been improperly set below their design values. The problem was identified on June 11, 2003, when both chiller motors tripped on overload current, when an overload current condition had not occurred.

The self-revealing finding is greater than minor safety significance because it resulted in a loss of the control complex cooling safety function and affected the availability and reliability of the Mitigating Systems Cornerstone of Reactor Safety that is used to mitigate events. The finding is of very low safety significance because the alternate non-safety Appendix R cooling system and feedwater pump (FWP-7) were available to mitigate transients involving systems that could be affected by the loss of cooling. (Section 4OA3)

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

G**Significance:** Sep 27, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Protect One Train of Safe Shutdown Equipment From Fire Damage

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix R, Section III.G.2, Fire Protection of Safe Shutdown Capability, for failure to protect certain electrical cables for safe shutdown equipment from fire damage in three fire areas. The licensee has corrected related identified procedural deficiencies and plans to resolve the noncompliance with cable protection through licensing correspondence with the NRC.

This finding is greater than minor safety significance because it involved a lack of required fire barriers for equipment relied upon for safe shutdown following a fire and because it affected the objectives of the Mitigating Systems Cornerstone of Reactor Safety. It affected the availability and reliability of systems that mitigate initiating events to prevent undesirable consequences. The finding is of very low safety significance because licensee's proceduralized manual actions are reasonably accomplishable and training would have enabled operators to maintain the makeup function sufficiently to maintain reactor coolant system process variables within acceptable ranges. Therefore, the inspectors identified this issue as a Green finding as described in Inspection Procedure 71111.05, Fire Protection. (Section 4OA5)

Inspection Report# : [2003005\(pdf\)](#)G**Significance:** Jun 28, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure To Implement Inservice Testing Program Requirements (Section 1R22).

A finding was identified for failure to implement increased frequency testing of a safety-related pump, after the pump differential pressure was found in the Alert range of the ASME Code, Section XI test on December 2, 2002. When tested on May 22, 2003, the pump was found in the Action range and was declared inoperable.

A non-cited violation of Technical Specification 5.6.2 was identified. The finding is greater than minor because an engineering evaluation was required to assure that accident analysis requirements were met during the subsequent period of operation with differential pressure below the design minimum value. If the finding had not been corrected, pump performance could have resulted in the safety system not being capable of performing its design function to remove residual heat following an accident. The finding is of very low safety significance because the maximum period of operation below the design minimum differential pressure was of short duration and redundancy existed that assured the safety function remained available. (Section 1R22)

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

Barrier Integrity

G**Significance:** Dec 27, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Identify and Correct a Small Pressure Boundary Leak in The Pressurizer Upper Level Instrument Tap Nozzles

A self-revealing non-cited violation of Technical Specification 3.4.12.a was identified. Small cracks in the pressurizer upper level instrument tap nozzles resulted in pressure boundary leakage since late 2000.

The finding was greater than minor because the breach in the reactor coolant system (RCS) affected the RCS barrier performance attribute of the Barrier Integrity Cornerstone objective. However, the cracks were very small, were axial in direction, and therefore, were not expected to grow large enough to challenge the structural stability of the nozzle. A Phase 3 analysis was performed and because the likelihood of a LOCA initiator was not affected, the finding was determined to be of very low safety significance. (Section 4OA3.3)

Inspection Report# : [2003006\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Last modified : May 05, 2004