

Watts Bar 1

1Q/2009 Plant Inspection Findings

Initiating Events

Significance:  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Incorporate Design Parameters into Plant Setpoint Document for the Containment Particulate Radiation Monitor

The NRC identified a Green, non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, for failure to translate revised design parameters into the setpoint and scaling document for the lower containment particulate radiation monitor. As a result, the radiation monitor was inoperable, due to incorrect alarm setpoints, for longer than the Technical Specification allowed out of service time. The licensee corrected the radiation monitor alarm setpoint and initiated entered the issue into their corrective action program as Problem Evaluation Report 154635.

The inspectors concluded that the finding was more than minor because the radiation monitor inoperability resulted in potential impact on reactor safety and adversely affected the availability and reliability of the equipment performance attribute of the Initiating Events Cornerstone. This finding was evaluated using the Significance Determination Process Phase 1 screening criteria and was determined to be of very low safety significance because other methods of reactor coolant system leak detection were available. The finding directly involved the cross-cutting area of Problem Identification and Resolution under the thorough evaluation of identified problems aspect of the corrective action program component, in that, the licensee failed to properly evaluate the radiation monitor's as-found alarm setpoint, which was substantially different than the specified setpoint, prior to resetting the alarm setpoint to the larger value (P.1.c).

Inspection Report# : [2008005](#) (*pdf*)

Significance:  Dec 31, 2008

Identified By: Self-Revealing

Item Type: FIN Finding

Performing Non-Authorized Activities on Exciter Field Breaker Results In Reactor Trip

A Green self-revealing finding was identified for the failure to obtain authorization prior to opening the main generator exciter field breaker compartment and operating the de-latching bar. The licensee's procedures for controlling sensitive plant equipment specified that personnel obtain the Unit Supervisor's authorization prior to beginning work on sensitive equipment. Operating the de-latching bar resulted in the exciter field breaker opening which resulted in the turbine generator and the reactor tripping. The licensee entered this issue into their corrective action program as Problem Evaluation Report 152955.

The finding was more than minor because it was associated with the Human Performance attribute of the Initiating Events Cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during at-power operations. This finding was evaluated using the Significance Determination Process Phase 1 screening criteria and was determined to be of very low safety significance because the finding did not contribute to both a reactor trip and the likelihood of mitigation equipment or functions not being available. The cause of the finding was directly related to the human performance and error prevention aspect of the cross-cutting area of Human Performance, in that, personnel failed to use the self-checking technique to stop and consider their actions for two minutes prior to proceeding with an activity (H.4.a).

Inspection Report# : [2008005](#) (*pdf*)

Mitigating Systems

Significance:  Dec 31, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Translate ERCW Pump Coupling Material Change into Procedures

A Green self-revealing non-cited violation of 10 CFR 50 Appendix B, Criterion III, Design Control, was identified for the failure to adequately translate material specifications into procedures. As a result, the B-A essential raw cooling water (ERCW) pump coupling failed due to an improper material being used. The licensee entered this issue into their corrective action program as Problem Evaluation Report 148716.

This finding is more than minor because it affects the plant modifications area of the design control attribute of the Mitigating Systems Cornerstone objective of reliability and availability, and if left uncorrected, it would result failure of other ERCW pumps. This finding was evaluated using the Significance Determination Phase 1 screening criteria and was determined to be of very low safety significance because the finding did not represent an actual loss of safety function of a single train of equipment for greater than its Technical Specification allowed outage time.

Inspection Report# : [2008005](#) (*pdf*)

Significance:  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Carbon Dioxide System in Fire Area 48 Failed to Meet Design Criterion

The NRC identified a Green, non-cited violation of Unit 1 Operating License Condition 2.F for not having a carbon dioxide (CO₂) suppression system for the Unit 1 auxiliary instrumentation room with the capability to maintain the design basis gas concentration of 50 percent in portions of the room for 15 minutes. The licensee entered the problem into their corrective action program.

The finding is more than minor because it affects the Mitigating Systems cornerstone objective of ensuring reliability and capability of systems that respond to initiating events and the cornerstone attribute of protection against external factors, i.e. fire. The finding was determined to be of very low safety significance by a Significance Determination Process Phase 1 evaluation. Test records indicated a 50 percent CO₂ concentration for 15 minutes in the lower half of the room and a 45 percent concentration for 15 minutes at three quarters of room height. This concentration was an acceptable amount to extinguish the most likely fire in this portion of the room.

Inspection Report# : [2008005](#) (*pdf*)

Significance:  Jun 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Plant Startup with Inoperable AFW Automatic Start on Trip of All MFW Pumps

A Green, NRC-identified non-cited violation of Technical Specification (TS) 3.0.4.a was identified for entering Modes 2 and 1 without an operable channel of auxiliary feedwater automatic start on a trip of all main feedwater pumps as required by TS 3.3.2. The licensee defeated this channel by introducing a signal that artificially indicated that a main feedwater pump was operating. This practice existed since initial plant startup. The licensee entered this issue into their corrective action program as Problem Evaluation Report 147351.

The finding is more than minor because it is associated with the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability of systems that respond to initiating events. Using IMC 0609, Appendix 0609.04, the finding was determined to be of very low safety significance because the finding did not represent an actual loss of safety function of a single train for greater than its TS allowed outage time since other initiation signals were available to automatically start the auxiliary feedwater pumps if needed. The cause of the finding was directly related to the Implementation of Corrective Actions aspect in the Problem Identification and

Resolution cross-cutting area, in that, the licensee failed to take appropriate corrective action in a timely manner to address the non-cited violation issued in NRC Inspection Report 05000390/2006004 associated with making plant mode changes with the auxiliary feedwater automatic start function trip of all main feedwater pumps inoperable (P.1 (d)).

Inspection Report# : [2008003](#) (pdf)

Significance:  Jun 30, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Comply with Technical Specification 3.3.2 to Have Two Trains of Automatic Actuation Logic and Actuation Relays for Safety Injection and Feedwater Isolation Operable

A Green, self-revealing non-cited violation of Technical Specification 3.3.2 was identified for failure to have two trains of safety injection (SI) automatic actuation logic and two trains of feedwater isolation actuation logic operable while in Mode 3. Upon the removal of temporary jumpers, the relay which blocks the actuation circuitry from performing their function was not reset. This condition existed until approximately 12 hours later when the licensee reset the relay by closing the reactor trip breakers. The licensee entered this event into their corrective action program as Problem Evaluation Report 140641.

This finding is more than minor because it affected the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events and adversely affected the cornerstone's equipment performance attribute for availability and reliability. A Phase 2 evaluation in accordance with IMC 609, Significance Determination Process, determined the finding to be of very low safety significance (Green) because of the low decay heat at the end of a refueling outage; the time for operators to take recovery actions; and due to the plant conditions, only the containment high pressure SI actuation portion of the automatic SI actuation logic was affected. The cause of the finding was directly related to the documentation, procedures and component labeling cross-cutting aspect in the resources component of the Human Performance cross-cutting area, in that, the instructions used by personnel to remove the temporary jumpers failed to provide necessary steps to ensure the actuation logics were returned to an operable status (H.2(c)).

Inspection Report# : [2008003](#) (pdf)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

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

Last modified : May 28, 2009