Watts Bar 1
2Q/2008 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G 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: G 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)*

Significance: G Mar 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedure Resulted in Inadequate Control of Materials Brought into Containment
Green. The inspectors identified a NCV of Technical Specification (T.S.) 5.7.1 for failure to properly implement procedural requirements and engineering controls for materials brought into containment while the plant was at power. The procedural violation resulted in temporary equipment/material left in containment with incorrect/incomplete documentation. The licensee entered these issues into the corrective action program (CAP) and either removed or properly evaluated the materials left in containment.

This finding is more than minor because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance, specifically reliability, and adversely affected the cornerstone objective. The finding is of very low safety significance because no equipment was rendered inoperable. The finding directly involved the cross cutting area of human performance under the procedural compliance aspect of the work practices component, in that, the procedural requirements of the licensee's procedure for containment access were not met and equipment/material left in containment was not properly analyzed and documented. (H.4 (b)) (Section 4OA2)

Inspection Report# : 2008002 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Reactivate RO/SRO Licenses in Accordance with Procedure OPDP-1, "Conduct of Operations"
The inspectors identified a non-cited violation of Technical Specification 5.7.1.1(a) for the procedure adherence to OPDP-1, "Conduct of Operations," and 10 CFR 55, Part 55.53 f(2), Conditions of Licenses, which resulted in two licensee employees failing to properly reactivate reactor operator/senior reactor operator licenses. The licensee entered the procedure adherence issues into their corrective action program for resolution.

This finding is more than minor because it affected the human performance attribute of the Mitigating System Cornerstone to ensure that licensed operators are available, reliable, and capable to respond to initiating events in order to prevent undesirable consequences. The inspectors evaluated this finding using IMC 0609, Appendix I, and determined the finding to be of very low safety significance. The finding is directly related to the cross-cutting area of human performance under the aspect of procedural compliance and personnel following procedures (H.4(b)).
Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Protection Program Did Not Demonstrate Eight-Hour Emergency Light Unit Battery Capacity
The Triennial Fire Inspection Team identified a non-cited violation of Unit 1 License Condition 2F and 10 CFR 50, Appendix R, Section III.J, Emergency Lighting, for having a fire protection program which failed to demonstrate that the emergency lighting units had eight-hour capacity.

This finding is more than minor because it is associated with the reactor safety attribute of the Mitigating Systems Cornerstone for protection against external factors (i.e., fire) and it affects the objective of ensuring reliability and capability of systems that respond to initiating events. The finding was of very low safety significance because safe shutdown would likely have been achieved with nearly the same level of effectiveness and reliability as it would have been had the degradation not been present. Prompt corrective action taken by the licensee was to replace the affected emergency light batteries. The finding had no cross-cutting aspects.
Inspection Report# : 2007005 *(pdf)*

Significance: G Sep 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Correct an Identified Procedural Deficiency Prior to Subsequent Maintenance
Green. The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified. The licensee failed to correct, in a timely manner, a procedural deficiency associated with the setup of HFA relays. As a result, the B-train safety injection pump (SIP) was inoperable in excess of the time limits prescribed by the associated technical specification limiting condition for operation. The licensee has entered the issue into their corrective action program and revised the associated maintenance procedure.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance because of the duration that the B Train SIP was unavailable and the availability of the A Train SIP. The finding directly involved the cross-cutting area of Problem Identification and Resolution under the appropriate and timely corrective actions aspect of the Corrective Action Program component; in that, prior to subsequent maintenance on safety-related equipment, the licensee failed to revise a maintenance instruction that had been previously determined to be inadequate (P.1(d)). (Section 1R12)
Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Correct the Failure of Safety Injection Relief Valves to Reseat after Actuation
Green. The inspectors identified a finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified. The licensee failed to identify incorrect as-found nozzle ring settings on safety injection relief valves. The as-found settings were significantly incorrect as to effect the proper reseat pressure for the relief valves. The licensee has identified a long-standing condition of safety injection relief valves failing to reseat while the Safety Injection Pumps (SIPs) are running. Failure of the relief valves to reseat has required the licensee to reduce the assumed margin in the peak cladding temperature by 120° Fahrenheit. The licensee has entered the failure to identify nozzle ring configuration control into the corrective action program for resolution.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events and, if left uncorrected, could have a more significant impact on core peak cladding temperature. The inspectors evaluated this finding using IMC 0609, Appendix A, and determined it to be of very low safety significance (Green). The finding directly involved the cross-cutting area of Problem Identification and Resolution under the implementation and institutionalizing of Operating Experience aspect of the Operating Experience component; in that, the licensee failed to properly implement and institutionalize operating experience through changes to station procedures (P.2(b)).(Section 4OA2.3)

Inspection Report# : 2007004 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance: G Mar 31, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Properly Prepare a Radioactive Material Package for Shipment
Green. A self-revealing NCV of 10 CFR 71.5 was identified for failure to properly package radiological material such that, under conditions normally incident to transportation, the radiation levels at the external surface of the package would not exceed applicable Department of Transportation (DOT) limits. When the shipment of equipment arrived at a processing facility on March 3, 2008, the contact radiation dose rate measurement in a small area on the bottom of the external surface of one of the packages was 340 mrem/hr, which was in excess of the 200 mrem/hr limit. Subsequent measurements by the licensee determined the dose rate to be 400 mrem/hr. This finding was entered into the licensee's corrective action program as Problem Evaluation Report (PER) 139447.

This finding is more than minor because it is associated with the plant facilities/ equipment and instrument attribute of the Public Radiation Safety Cornerstone and adversely affected the cornerstone objective, in that the improper transportation packaging resulted in a shipping container with external dose rates exceeding regulatory requirements. Using the Public Radiation Significance Determination Process, the finding was determined to be of very low safety significance because the area on the package with the elevated radiation level was inaccessible to the public and the radiation level did not exceed two times the DOT limit. This finding was reviewed for cross-cutting aspects and none were identified. (Section 2PS2)

Inspection Report# : 2008002 *(pdf)*

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

Significance: N/A Sep 14, 2007
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Resolution
The team determined that the licensee was identifying plant deficiencies at an appropriately low level and effectively entering them into their corrective action program. The team also determined that the licensee was prioritizing and evaluating issues properly. Overall, the licensee was generally providing effective corrective actions.

On the basis of interviews conducted during this inspection, the team determined that workers at the site felt free to enter safety concerns into the corrective action program. The inspectors concluded that the employee Concerns Resolution program was functioning as intended.
Inspection Report# : 2007008 *(pdf)*

Last modified : August 29, 2008