

# Watts Bar 1

## 1Q/2008 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:**  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 40A2)

Inspection Report# : [2008002](#) (*pdf*)

**Significance:**  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:**  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*)

**G**

**Significance:** 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*)

**G**

**Significance:** 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 reseal pressure for the relief valves. The licensee has identified a long-standing condition of safety injection relief valves failing to reseal while the Safety Injection Pumps (SIPs) are running. Failure of the relief valves to reseal 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*)

**G**

**Significance:** Jun 30, 2007

Identified By: NRC

Item Type: FIN Finding

### **Inadequate Risk Assessment for Work In Progress (Section 1R13)**

Green. The inspectors identified a finding associated with 10 CFR 50.65 (a)(4), Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, for the licensee's failure to perform an adequate risk assessment which resulted in an underestimation of the risk associated with performing a planned maintenance activity on the 1B residual heat removal pump. The licensee entered the issue into their corrective action program for resolution as Problem Evaluation Report (PER) 124269.

The finding is more than minor because, when assessed correctly, the planned maintenance would put the plant into a higher licensee-established risk category. The inspectors determined that the finding was of very low safety significance because of the duration of the inadequate risk assessment. The inspectors concluded the cause of the finding had no definitive cross-cutting aspect that was reflective of current licensee performance. (Section 1R13)

Inspection Report# : [2007003 \(pdf\)](#)

**G**

**Significance:** Jun 15, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

### **Safe Shutdown Procedure for Portions of FA 8 Not Consistent With Underlying Analysis**

The team identified a non-cited violation of Technical Specification 5.7.1, Procedures, in that post-fire safe shutdown procedure AOI-30.2, Revision 23, was not consistent with the underlying circuit analysis for a portion of Fire Area 8.

The finding is more than minor because it is associated with the reactor safety, mitigating systems, cornerstone attribute of 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 due to the low likelihood of fires which could cause the type of cable damage that would challenge the procedure weaknesses. The licensee took immediate corrective action and initiated additional longer term corrective actions.

Inspection Report# : [2007007 \(pdf\)](#)

**G**

**Significance:** Jun 15, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

### **Feeder Cables for Vital Inverter not Protected with One-Hour Fire Barrier**

The team identified a non-cited violation of Unit 1 License Condition 2F and 10 CFR 50, Appendix R, Section III.G.2, for not enclosing vital inverter power supply cables in Fire Area 20 in a one-hour fire barrier.

The finding is more than minor because it is associated with the reactor safety, mitigating systems, cornerstone attribute of 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 significance because it was a minor degradation of the safe shutdown capability and mitigating systems were not affected. The licensee took immediate compensatory measures and initiated permanent corrective actions.

Inspection Report# : [2007007 \(pdf\)](#)

**G**

**Significance:** Jun 15, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Provide Emergency Light at Location of Local Operator Action Important to Safe Shutdown**

The team identified a non-cited violation of Unit 1 License Condition 2F and 10 CFR 50, Appendix R, Section III J, for not providing an emergency light to illuminate the interior of a panel in which a local operator action to pull fuses was directed by the post-fire shutdown procedure for a fire in Fire Area 48.

The finding is more than minor because it is associated with the reactor safety, mitigating systems, cornerstone attribute of 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 significance because it was a minor degradation of the safe shutdown capability. The licensee took immediate compensatory measures and initiated installation of an emergency light at the problem location

## Barrier Integrity

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## Emergency Preparedness

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## Occupational Radiation Safety

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## 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)

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## 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.

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## 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*)

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