

Surry 2

1Q/2007 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Perform an Adequate Extent of Condition Review for Unit 1 June 29, 2006, Turbine Building Damage Event

A Green self-revealing finding was identified for not performing an adequate extent of condition review in accordance with the licensee's established procedures. The potential consequences of having siding torn from the Turbine Building if Unit 2 experienced steam relief valve actuations, as had occurred on Unit 1 on June 29, 2006, was not recognized. Consequently on October 7, 2006, the actuation of Unit 2 steam relief valves resulted in the loss of normal power to two emergency buses on Unit 1 and one emergency bus on Unit 2 due to flying debris impacting electrical conductors. The finding was entered into the licensee's corrective action program as Condition Report (CR) 003598. Sections of the Turbine Building near the discharge of the steam relief valves were temporarily strengthened while additional long term corrective actions were being evaluated.

The finding is more than minor due to its impact on the Initiating Events objective to limit the likelihood of those events that upset plant stability and the related attribute of human performance. This finding was of very low safety significance (Green) because the increase in risk was limited by the duration of the condition. The cause of the finding was directly related to the appropriate and timely corrective actions aspect of the problem identification and resolution cross-cutting area because sufficient information was available for the licensee to have identified potential damage to plant equipment and taken actions to limit it when the Unit 2 steam relief valves actuated.

Inspection Report# : [2007002](#) (*pdf*)

Mitigating Systems

Significance:  Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Include the Pressurizer Power Operated Relief Valve in the On-line Risk Assessment Prior to Other Maintenance Activities

The inspectors identified a Green, non-cited violation (NCV) of 10 CFR 50.65 (a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for failure to assess the increase in risk that results from proposed maintenance activities. Specifically, in assessing the increase in risk of planned maintenance activities, the licensee failed to adjust their on-line risk evaluation for operation with a pressurizer power operated relief valve (PORV) block valve closed. The licensee entered this violation in their corrective action program as CR007055 for resolution.

This finding is more than minor because it relates to risk management, in that, the maintenance risk assessments failed to consider the unavailability of a PORV, a risk significant component. The inspectors determined that the finding is of very low safety significance (Green) since the inclusion of the closed PORV block valve into the risk assessments showed no appreciable increase in plant risk during the performed maintenance activities. The cause of the finding was directly related to the proper work planning aspect of the human performance cross-cutting area because the licensee had not included the PORV block valve in their on-line risk monitoring program.

Inspection Report# : [2007002](#) (*pdf*)

Significance:  Mar 31, 2007

Identified By: Self-Revealing
Item Type: NCV NonCited Violation

Inadequate Procedural Instructions Results in Inoperable Charging Pump Component Cooling Water System

A self-revealing non-cited violation of Technical Specification 6.4.A, "Unit Operating Procedures and Programs," was identified for failure to have adequate written procedures for normal startup of systems and components involving nuclear safety. Specifically, the licensee failed to have adequate procedural instructions to preclude the Unit 2 charging pump component cooling water system from becoming air bound when returning it to service. As a result all three Unit 2 charging pumps, also emergency core cooling system (ECCS) pumps, were declared inoperable due to lack of seal cooling. This violation was entered in the licensee corrective action program as CR000031 for resolution, which included performing an apparent cause analysis, and determining corrective actions.

The finding is more than minor because a procedural error that results in a consequence, in this case the inoperability of three ECCS pumps, is more than of minor safety significance. The significance of the finding was determined to be of very low safety significance (Green) due to the short period of time the cooling water system was unavailable. The cause of the finding was directly related the complete documentation and component labeling aspect of the human performance cross-cutting area because procedural instructions for venting the component cooling water system were not adequate.

Inspection Report# : [2007002](#) (*pdf*)

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Significance: Mar 31, 2007

Identified By: Self-Revealing
Item Type: NCV NonCited Violation

Breaker Control Circuit Design Deficiency Results in Failure to Supply Emergency Bus 1J

A self-revealing, non-cited violation of 10 CFR 50.63 was identified regarding a breaker control circuit design deficiency which prevented the licensee from supplying the 1J emergency bus on Unit 1 from the alternate AC diesel generator. The problem occurred during a transient on October 7, 2006, in which the actuation of Unit 2 steam relief valves resulted in the loss of normal power to two emergency buses on Unit 1 and one emergency bus on Unit 2 due to flying debris impacting electrical conductors. The licensee installed a modification to correct the breaker circuit design deficiency.

The finding is more than minor because it impacted the Mitigating Systems objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage) and the related attribute of design control. This finding was of very low safety significance (Green) because the recovery of the alternate AC diesel generator's ability to energize a safety bus after four hours was credible.

Inspection Report# : [2007002](#) (*pdf*)

Significance: SL-IV Dec 31, 2006

Identified By: NRC
Item Type: NCV NonCited Violation

Proceduralized Departures from TS

The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.59, "Changes, Tests, and Experiments." Specifically, the licensee implemented proceduralized departures from the approved station technical specifications (TS) without the required NRC approval in procedures AP-13.0, Turbine Building Flooding, revision 13, and FCA 6.01, Uncontrollable Turbine Building Flooding, revision 2.

This finding was evaluated using traditional enforcement since it impacted or impeded the regulatory process in that the licensee improperly used the 10 CFR 50.59, "Changes, Tests, and Experiments," process to incorporate operator actions inconsistent with the TS. This finding was of more than minor safety significance because the procedure changes improperly bypassed the required NRC review and approval prior to implementation. The unapproved procedural actions would only be involved at the end of a very rare accident sequence. Given the time during the accident sequence in which these actions were to be accomplished, the actions were not a deterrent to core damage. Therefore, the violation was of very low safety significance. The finding is identified as Severity Level IV because the noncompliance is not considered to be of more than very low significance based on risk.

Inspection Report# : [2006005](#) (*pdf*)

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Significance: Jun 30, 2006

Identified By: NRC
Item Type: NCV NonCited Violation

Removal of Damper Motor Operators From CO2 System in Normal Switchgear Rooms

The team identified a non-cited violation of Operating License Condition 3.I for removing the automatic feature of ventilation dampers which degraded the fixed gaseous suppression system in the normal switchgear room at both units by allowing carbon dioxide to flow out should the manual operated dampers be in the open position.

The finding is more than minor because it was associated with the reactor safety, mitigating systems cornerstone attribute of protection against external factors, i.e. fire, and it affected the objective of ensuring reliability and capability of systems that respond to initiating events. The finding is of very low safety significance because the frequency of fires potentially challenging mitigating systems was relatively low and multiple trains of shutdown equipment would be available.

Inspection Report# : [2006009](#) (*pdf*)

Significance:  Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedure for Post-Fire Safe Shutdown During a Fire in Mechanical Equipment Room 3

The team identified a non-cited violation of Technical Specification 6.4.E for failure to provide an adequate post-fire safe shutdown procedure. Procedure 0-FCA-7.00, Rev. 10, failed to ensure that a source of water would be aligned to the suction of the charging pump service water pumps during a severe fire in Mechanical Equipment Room 3. Consequently, all charging pumps of both units could have no service water cooling resulting in pump overheating and failure.

The finding is greater than minor because it affected the objective of the mitigating system cornerstone to ensure the availability, reliability, and capability of systems that respond to initiating events. Since the procedure had been in place for less than one month and during that time a source of water could have been aligned, this finding is of very low safety significance.

Inspection Report# : [2006009](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Significance:  Oct 27, 2006

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Activate ERDS Within One Hour of an Alert Declaration

A green self-revealing non-cited violation of 10 CFR 50.72(a)(4) was identified. During the October 7, 2006, partial loss of offsite power event, the licensee failed to activate the Emergency Response Data System (ERDS) within one hour of an Alert declaration. The ERDS was not made operable until approximately five and one-half hours after the Alert declaration due to an upgrade to the telephone exchange that had been done seven days prior to the event.

The finding is more than minor due to its impact on the Emergency Preparedness cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency and the related attribute of Emergency Response Organization response. The finding is of very low safety significance (Green) because it involved a “failure to implement” (in distinction to a “failure to meet”) an NRC emergency planning standard. The cause of the finding is related to the cross-cutting area of human performance, in that, the licensee failed to reprogram the telephone exchange following a telephone system change which occurred prior to the event. Upon discovery, the licensee immediately reprogrammed the telephone exchange and entered the problem into their corrective action program as condition report CR 002183.

Inspection Report# : [2006011](#) (*pdf*)

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

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

Miscellaneous

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