

Surry 1

1Q/2004 Plant Inspection Findings

Initiating Events



Significance: Apr 05, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Properly Evaluate and Approve the Storage of Flammable Materials in the Vicinity of Safety-related Equipment

The licensee failed to properly evaluate and approve the storage of flammable materials in the vicinity of safety-related equipment in the Auxiliary Building and the Unit 2 Safeguards area.

An NRC-identified non-cited violation of the Technical Specification 6.4.E was identified. This finding is more than minor because the amount of material improperly stored exceeded the quantity specified in the licensee's Combustible Loading Analysis. The finding is of very low safety significance because it did not cause the impairment or degradation of a fire protection feature or defense in depth.

Inspection Report# : [2003002\(pdf\)](#)

Mitigating Systems

Significance: TBD Jan 07, 2004

Identified By: NRC

Item Type: AV Apparent Violation

Alternative Shutdown Capability and Response Procedures Not Adequate to Ensure Safe Shutdown of Unit 1

Preliminary White. An apparent violation of 10 CFR 50, Appendix R, Sections III.L.2.b and III.L.3 was identified, in that, for a severe fire in the Emergency Switchgear and Relay Room Number 1 (Fire Area 3), the licensee's fire response procedures were not effective in assuring a safe shutdown of the Unit 1 reactor. The licensee has revised the affected fire response procedures and is evaluating the need for additional corrective action.

This finding is greater than minor because it was associated with "protection against one of the external factors" attribute. It affected the objective of the Initiating Events cornerstone to limit the likelihood events that challenge critical safety functions as well as affected the objective of the Mitigating Systems cornerstone to ensure the availability, reliability and capability of systems that respond to initiating events. This degraded condition increased plant risk because, if a severe fire occurred in Fire Area 3, these procedures may not preclude an extended loss of reactor coolant pump seal injection flow and may initiate a reactor coolant pump seal loss of coolant accident which could result in pressurizer level failing to be maintained within the indicating range as required.

Inspection Report# : [2003008\(pdf\)](#)



Significance: Jan 07, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Fire Response Procedures 1-FCA-3.00 And 0-FCA-14.00 Not Adequate To Ensure Safe Shutdown Of Unit 1.

A Green non-cited violation of 10 CFR 50, Appendix R, Sections III.L.2.b and III.L.3, was identified, in that, for a severe fire in the Unit 1 Cable Vault and Tunnel (Fire Area 1), the licensee's alternative shutdown capability may not ensure that the reactor coolant makeup function would be capable of maintaining the reactor coolant level within the level indication of the pressurizer. The licensee has entered this finding into its corrective action program.

This finding is greater than minor because it was associated with "protection against one of the external factors" attribute. It affected the objective of the Initiating Events cornerstone to limit the likelihood events that challenge critical safety functions as well as affected the objective of the Mitigating Systems cornerstone to ensure the availability, reliability and capability of systems that respond to initiating events. This finding was determined to be of very low safety significance because the likelihood of a severe fire in the service building cable vault (SBCV) or the cable tunnel that could cause a loss of all three Unit 1 charging pumps is very low and a 3-hour rated fire door would prevent a severe fire in the remaining sections of Fire Area 1 from spreading through the cable tunnel to the SBCV.

Inspection Report# : [2003008\(pdf\)](#)

G**Significance:** Jan 07, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Alternate Shutdown Panel Ventilation System Not Independent From Impacts Of A Main Control Room Fire.

A Green non-cited violation was identified for failure to comply with 10 CFR 50, Appendix R, Sections III.G.3.a and III.L.3. Specifically, the shared ventilation system between the main control room (MCR) and the Unit 1 and Unit 2 emergency switchgear and relay rooms (ESGRs), did not have adequate separation, isolation, or barriers to preclude smoke and toxic gases from being transported to the ESGRs during a fire in the MCR. The alternative shutdown capability for an MCR fire is located in each unit's ESGR, respectively. Consequently, operators may not have the environmental conditions or visibility to safely man and accomplish a successful shutdown of either Unit 1 or Unit 2 from the Auxiliary Shutdown Panels. The licensee has entered this finding into its corrective action program.

This finding is greater than minor because it was associated with the "protection against external factors" attribute and affected the objective of the Mitigating Systems cornerstone to ensure the availability, reliability, and capability of systems that respond to initiating events. This finding was determined to be of very low safety significance because heat from a fire, and the natural buoyancy of smoke, will cause the smoke gas layer to accumulate near the ceiling of the MCR (away from the ESGRs), the likelihood of a severe fire in the MCR is low, and the prompt response and actions of the MCR operators and the fire brigade would prevent any fires that start from becoming severe.

Inspection Report# : [2003008\(pdf\)](#)G**Significance:** Dec 05, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Auxiliary Feedwater Pump Design Basis not Translated into Procedures

The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criteria III (Design Control), in that, a design basis requirement for the Unit 1 auxiliary feedwater pump turbine governor oil viscosity was not correctly translated into a March 2001 procedure revision. The procedure revision failed to require the main steam valve house room temperature to be above that required for minimum vendor specified governor oil viscosity. This non-cited violation contributed to the pump's failure to continue to operate after starting in response to a reactor trip on January 25, 2003.

This finding is greater than minor because it affected the reliability of the Unit 1 turbine driven auxiliary feedwater pump. However, the finding was determined to be of very low safety significance since (1) except for January 25, 2003, conditions after the procedure change in March 2001 would not have been expected to lower main steam valve house room temperatures below acceptable temperatures, and (2) on January 25, 2003, the two motor driven auxiliary feedwater pumps were operable and performed as expected. Surry personnel tracked corrective actions for this issue under plant issue S-2003-5822.

Inspection Report# : [2003009\(pdf\)](#)G**Significance:** Sep 27, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Emergency Diesel Generator No. 3 Bus-Tie Breaker Control Circuit Design Deficiency

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control because emergency diesel generator (EDG) no. 3 could have been overloaded following a concurrent loss-of-offsite power on Units 1 and 2. The licensee has resolved the problem through a modification of the breaker control circuitry.

This finding is greater than minor because it is associated with EDG performance and affects the mitigating systems cornerstone objective. The finding is of very low safety significance because the inspectors determined that the automatically connected loads are less than the 168-hour rating of the EDG.

Inspection Report# : [2003004\(pdf\)](#)G**Significance:** Apr 05, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Take Adequate Corrective Actions to Preclude Additional De-alloying Failures for Valves in the Charging Service Water System

The licensee failed to take adequate corrective actions to preclude additional de-alloying failures for valves in the charging service water system after a failure had occurred in August 2001.

A self-revealing non-cited violation of 10 CFR 50, Appendix B, Criterion XVI was identified. This finding is more than minor because of the potential impact on the reliability of the safety injection system. The finding is of very low safety significance because the failure did not actually cause the loss of cooling to the charging pumps.

Inspection Report# : [2003002\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: N/A Dec 05, 2003

Identified By: NRC

Item Type: FIN Finding

Biennial Problem Identification and Resolution Report

The team concluded that Surry personnel were properly identifying problems and entering them into the corrective action program at a threshold that supported safe plant operation. The team did not identify instances where conditions adverse to quality were handled outside the corrective action process. The team further concluded that evaluations were prioritized and completed in a timely fashion consistent with the safety significance of the issue. Cause evaluations generally were found to address technical issues to a depth necessary to identify likely causes. The team identified one finding regarding a less than adequate procedure change evaluation that impacted the reliability of the Unit 1 turbine driven auxiliary feedwater pump. The team found that corrective actions were adequately tracked and completed in a time frame commensurate with their safety significance.

Inspection Report# : [2003009\(pdf\)](#)

Last modified : May 05, 2004