

Vogle 2

2Q/2007 Plant Inspection Findings

Initiating Events

Significance:  Sep 30, 2006

Identified By: Self-Revealing

Item Type: FIN Finding

Poor Workmanship and Inadequate Work Instructions for Maintenance on Reactor Coolant Pump Resulted in a Reactor Trip Due

A self-revealing finding was identified for inadequate work instructions and poor work practices associated with the installation of a surge arrestor design change on the Unit 2 loop 4 reactor coolant pump (RCP). This condition resulted in short circuiting in the surge arrestor cable which resulted in a trip of the loop 4 RCP and subsequent reactor trip.

The inspectors determined that the cause of this finding was related to the work practices aspect of the human performance cross-cutting area because the work instructions did not contain adequate detail to properly install the surge arrestor cable. This finding is greater than minor because it affected the human performance and procedure quality attributes of the Initiating Event Cornerstone in that the installed loop 4 surge arrestor cable was incorrect in type and size and was incorrectly installed. The finding was determined to be of very low safety significance (Green) because it did not increase the likelihood that mitigation equipment or functions would not be available.

Inspection Report# : [2006004](#) (*pdf*)

Mitigating Systems

Significance:  Jun 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify Replacement Strainer Clearances Greater than Design Procurement Specifications

The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion VII, Control of Purchased Materials, Equipment, and Services, for failure to identify deviations from the procurement specifications regarding the maximum allowable clearances of the replacement Unit 2 containment emergency recirculation sump strainers.

The finding is more than minor because it affects the Design Control and Equipment Performance attributes of the Mitigating Systems cornerstone objective in that larger perforations could have prevented long-term core decay heat removal. The finding was determined to be of very low safety significance (Green) because the affected components were not placed in service prior to repair. The finding has a cross-cutting aspect in the area of Human Performance involving supervisory and management oversight of work activities, particularly receipt inspection of containment sump screen hardware. This violation has been entered into the licensee corrective action program as CR 2007103895.

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

Significance:  Jun 04, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Safety-Related 480 VAC Molded Case Circuit Breakers On MCC 1ABF, 1BBF, 2ABF, and 2BBF Not Tested

The inspectors identified a violation of 10 CFR 50, Appendix B, Criterion XI, Test Control, for failure to implement a test program to assure that all installed safety related molded case circuit breakers (MCCBs) will perform satisfactorily in service. Under postulated electrical fault conditions, failure of one of these circuit breakers to operate properly would lead to either a loss of power to safety-related components or lead to a potential for compromising other equipment on a single fault that the MCCB was designed to isolate. The 1A, 1B, 2A, and 2B motor driven

auxiliary feedwater pump (MDAFWP) recirculation valve motor operators and the MDAFWP room cooler fans for both trains at both units receive their power through MCCBs.

This finding is more than minor because it is associated with the Mitigating Systems Cornerstone attribute of Procedure Quality. It impacts the cornerstone objective of ensuring the availability, reliability, and operability of the MDAFW pumps to perform their intended safety function during a design basis event. The inspectors assessed the finding using the SDP and determined the finding was of very low safety significance (Green) because the inspectors found no documented history of in-service failures of MCCBs rendering safety-related equipment inoperative. This issue is documented in the corrective action program as condition report (CR) 2007105855.

Inspection Report# : [2007006](#) (*pdf*)

Significance:  Jun 04, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Maximum Differential Pressure for Containment Emergency Sump Isolation Valves Not Calculated

The inspectors identified a violation of 10 CFR 50, Appendix B, Criterion III, Design Control, for failure to evaluate the impact of an increase of the residual heat removal (RHR) system pressure during the RHR pump operation in a minimum flow alignment in determining the maximum dP across the containment emergency sump isolation valves 1/2-HV-8811A/B, which could have challenged the capability of these motor operated valves (MOV's) to open following a small break loss of coolant accident (SBLOCA). Maximum system pressure would occur following a SBLOCA.

This finding is more than minor because it is associated with the Mitigating Systems Cornerstone attribute of Design Control. It impacts the cornerstone objective of ensuring the availability, reliability, and operability of the containment emergency sump isolation valves to perform their safety function during a SBLOCA event. The calculation deficiencies represented reasonable doubt regarding the operability of MOV's 1/2-HV-8811A/B pending the outcome of additional calculations initiated after the inspectors questioned the condition. The lack of an accurately calculated maximum dP across these MOV's created the possibility for repairs or modifications to be performed while using an incorrect dP value as a design input. The inspectors assessed the finding using the SDP and determined the finding was of very low safety significance (Green) because there was not a loss of safety system function based upon the inspector's verification of the SNC analysis that the containment emergency sump isolation valves 1/2-HV-8811A/B were currently operable. This issue is documented in the corrective action program as CR 2007100247 and CR 2007105848.

Inspection Report# : [2007006](#) (*pdf*)

Significance:  Sep 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Promptly Identify Instruments with Environmental Qualification Deficiencies

The inspectors identified an NCV of 10CFR50, Appendix B, Criterion XVI, for a failure to promptly identify and correct a condition adverse to quality. During an environmental qualification (EQ) self-assessment in June, 2005, the licensee discovered that two Rosemount differential pressure transmitters with potentially damaged environmental seals between the electronics and the pressure sensing sections of the instrument. This violation has been entered in the licensee corrective action program as CR 2006109187

The finding is of more than minor significance because it affects the equipment availability and reliability attribute of the Mitigating Systems cornerstone objective in that the damaged seals reduced the reliability of safety-related systems. The NRC Region II Senior Reactor Analyst (SRA) determined that the Phase 2 significance evaluation process does not properly address this finding. Therefore, a Phase 3 significance determination evaluation was performed. The dominant accident sequence involved a Medium Break Loss of Coolant Accident followed by the failure of three channels of the Engineered Safety Features Actuation System, one due to a failed EQ seal and the other two via random failure. The Phase 3 results were that the finding was of very low safety significance (Green) since only one pressurizer pressure transmitter was affected.

Inspection Report# : [2006004](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Significance: **W** Aug 31, 2006

Identified By: NRC

Item Type: VIO Violation

White Finding Involving Failure to Identify A Weakness During an Emergency Exercise Critique Associated with an RSPS.

The NRC identified a Violation for failure of the licensee's exercise critique process to properly identify a weakness associated with a risk-significant planning standard (RSPS) that was determined to be a Drill/Exercise Performance (DEP) Performance Indicator (PI) opportunity failure during a full-scale exercise. The AV is associated with emergency preparedness planning standards 10 CFR 50.47(b)(14) and 10 CFR 50.47(b)(4) and the requirements of Section IV.F.2.g of Appendix E to 10 CFR Part 50. This finding was not entered into the licensee's corrective action program.

The failure of the licensee's exercise critique process was a performance deficiency. This finding was greater than minor because it was associated with the Emergency Preparedness Cornerstone and affected the cornerstone objective to ensure that the licensee was capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The finding was an identified weakness that demonstrated a level of performance that could preclude effective implementation of the Emergency Plan in an actual emergency. This finding was also determined to potentially have greater significance because the licensee's exercise critique process failed to properly identify a weakness associated with an RSPS that was determined to be a DEP PI opportunity failure during a full-scale exercise.

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

Occupational Radiation Safety

Significance: **G** Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to use only NIOSH certified respiratory protection equipment.

The inspectors identified a non-cited violation of 10 CFR Part 20.1703(a) for the use of respiratory protection equipment that had not been certified as safe by the National Institute for Occupational Safety and Health (NIOSH). The licensee discontinued use of the respiratory protection equipment and the issue was entered into the corrective action program under condition report (CR) number 2006111584.

The finding is more than minor because it is associated with the Occupational Radiation Safety cornerstone attribute of Equipment and Instrumentation and adversely affects the cornerstone objective of protecting worker health and safety from exposure to radiation. When using non-NIOSH approved respirators to limit intake of radioactive material, the potential exists to put workers in a situation that may be more hazardous than the radiological danger that the respirator is meant to protect against (e.g. loss of air flow). The finding was determined to be of very low safety significance because it was not an As Low As Reasonably Achievable (ALARA) planning issue, there was no overexposure nor potential for overexposure, and the licensee's ability to assess dose was not compromised.

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

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

Significance: N/A Feb 16, 2007

Identified By: NRC

Item Type: FIN Finding

Identification and Resolution of Problems Inspection Summary

No findings of significance were identified. The licensee was generally effective in identifying problems at a low threshold and entering them into the corrective action program. The licensee properly prioritized issues entered into the corrective action program (CAP) and routinely performed evaluations that were technically accurate and of sufficient depth to address the issue documented in the condition reports (CRs). Station management has recently been providing increased focus and attention on the quality of root cause and apparent cause determinations based on the results of any internal self assessments. Improvements were noted in the documents produced over the past quarter. Operating experience was found to be used both proactively and reactively by personnel involved in the corrective action program. The licensee's programmatic self-assessments and audits were generally effective in identifying weaknesses in the corrective action program. Weaknesses in the performance of required effectiveness reviews by the department(s) responsible for specific CRs were identified by the inspectors which have the potential to allow similar events to occur at the station by not ensuring corrective action deficiencies are identified and corrected. The inspectors concluded that the workers at Vogtle felt free to report safety concerns.

Inspection Report# : [2007009](#) (*pdf*)

Last modified : August 24, 2007