

Calvert Cliffs 2

2Q/2003 Plant Inspection Findings

Initiating Events

Significance:  Jun 28, 2003

Identified By: Self Disclosing

Item Type: FIN Finding

Troubleshooting Human Performance Error Results in a Reactor Trip

The inspectors identified a finding because the work practices during a turbine governor valve control circuit troubleshooting activity were inadequate and resulted in a reactor trip. This finding is greater than minor because it affected an attribute and the objective of the Initiating Events Cornerstone in that the work practices inadequacies resulted in a perturbation in plant stability by causing a reactor trip. The finding is of very low safety significant in accordance with Phase 1 of the reactor safety SDP because, although it caused a reactor trip, it did not increase the likelihood of a primary or secondary system loss of coolant accident initiator, did not contribute to a combination of a reactor trip and loss of mitigation equipment functions, and did not increase the likelihood of a fire or internal/external flood.

Inspection Report# : [2003003\(pdf\)](#)

Significance:  Nov 22, 2002

Identified By: NRC

Item Type: FIN Finding

Failure to take adequate corrective actions for poor quality welds on reactor coolant pump support systems

CEG did not adequately complete identified corrective actions in response to a weld deficiency in the component cooling water (CCW) line to a Unit 2 reactor coolant pump (RCP) in October 2001. The incomplete corrective actions, due to missed inspections of some welds in the RCP support systems, contributed to a failed weld in a lube oil line to a RCP and a Unit 1 reactor trip in July 2002.

Inspection Report# : [2002012\(pdf\)](#)

Mitigating Systems

Significance:  Mar 29, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Untimely & inadequate corr. actions to prevent 4kV breaker auxiliary switch failure. The condition review for SBM switches used in other applications have been inadequate and incompl. since 1996.

A self-revealing NCV was documented regarding CCNP's inadequate and untimely corrective actions to prevent recurrence of SBM-type auxiliary switch failure as required by 10 CFR 50, Appendix B, Criteria XVI, "Corrective Action". The finding is considered a PI&R cross-cutting issue due to the failure to prevent recurrent SBM-type switch failures and due to inadequate and incomplete extent of condition reviews since CCNPP's review of industry operating

experience regarding degraded and defective GE SBM switches in 1996. The inspectors determined that this event was more than minor because the finding represented an actual loss of the safety function, for 28 days, for the 1B EDG to be capable of providing emergency electrical power to the 14 4kV vital emergency bus. The safety significance of this finding was very low because of a plant design feature that allows the Unit 2 motor driven auxiliary feedwater pump to supply the Unit 1 steam generators during a station blackout (no AC power) at Unit 1. (Section 40A3). '

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

Barrier Integrity

Emergency Preparedness

Significance:  Mar 29, 2003

Identified By: NRC

Item Type: FIN Finding

EAL initiating conditions caused delays in declar. approp. emerg. classifi. during simulator as a drill. The EALS & Oper. procedures in lieu of plant conditions alone contributed to this issue.

The inspectors identified a finding that the CCNPP emergency action level (EAL) initiating conditions, as written, caused delays and an incorrect emergency classification declaration during a simulator scenario evaluated as a drill. A contributing cause of this finding was that the content of CCNPP's EALs incorporated plant conditions and operator implementation of procedures as initiating conditions in lieu of using plant conditions alone as the EAL initiating conditions. This issue was determined to be more than minor because if left uncorrected it could become a more significant safety concern regarding the potential untimely public notification of an emergency. This finding was classified as Green (of very low safety significance) after NRC management review since the Emergency Preparedness (EP) Significance Determination Process (SDP) did not apply. (Section 1EP6)

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

Significance:  Jul 19, 2002

Identified By: NRC

Item Type: VIO Violation

ANS was not capable of activating for 84 days in a timely manner.

The inspector identified an apparent violation of 10 CFR 50.54(q), 10 CFR 50.47(b)(5) and Appendix E.IV.D.3. The Calvert County offsite ANS (49 sirens) was not capable of being activated in a timely manner for 84 days due to the removal of a computer icon used for activating the sirens at the Calvert County, Maryland 911 Center. The means to alert and notify the public in a timely manner is a Risk Significant Planning Standard (RSPS) and according to the Emergency Preparedness (EP) Significant Determination Process (SDP), (Manual Chapter 0609, EP Risk Determination Flow Chart, Sheet 1, Third Path, Section 4) failure to meet this RSPS is considered of moderate to high safety significance (Yellow). However, using Manual Chapter 0609, Appendix B, Section 1, "Failure to Meet a Risk Significant Planning Standard," and the EP SDP it recognizes that a finding "placed in context" through the SDP can potentially result in a color (e.g. Green, White, Yellow, Red) that exceeds the actual impact on public health and safety. The NRC concluded that the siren activation problem did not have a substantial impact on the EP Cornerstone Objective, and therefore, the finding does not rise to the level of substantial safety significance and is more appropriately characterized as low to moderate safety significance (White). In making this determination, the NRC considered that: (1) the system was capable of sounding and notifying the public within 30 minutes if the system

was needed to be activated during the 84-day period (this was based on the time the County identified and fixed the icon problem); (2) prior to the activation of the sirens, 55 emergency vehicles would be placed in the field to begin automatic route alerting simultaneously with initial siren activation (this activity supplements coverage provided by siren activation); and (3) there were no significant equipment problems found to prevent the actual sounding of the sirens as demonstrated on November 15, 2001, during a retest in which 100% of the sirens sounded. Accordingly, the NRC considers the significance of the problem to be the length of time the problem was undetected which is considered a low to moderate safety significance (White). Accordingly, the NRC has determined that the capability of meeting the function of alerting the public was met, but not in a timely manner. The NRC considers the true significance of the problem to be in the length of time the problem was undetected. Therefore, the finding is considered to be of low to moderate safety significance (White).

Inspection Report# : [2002010\(pdf\)](#)

Occupational Radiation Safety

Public Radiation Safety

Significance:  Sep 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to fill & limit contents of shipment of radioactive material to waste processing facility on 7/11/02 in accord with DOT 49 CFR 173.24(b)(2), specified by 10 CFR 71.5, Transp of Lic Material.

From an in-office review, the inspector identified a Non-Cited Violation of 10 CFR 71.5. On July 11, 2002, Constellation Generation's Calvert Cliffs Nuclear Power Plant failed to properly fill and limit the contents of a package of hazardous material (i.e., radioactive material) such that, under conditions normally incident to transportation, the effectiveness of the package would not be substantially reduced, as specified by the Department of Transportation's (DOT) regulation, 49 CFR 173.24(b)(2). On arrival at the processing facility on July 12, 2002, a piece of metal, from the shipment of radioactive material, was found to be protruding from the package. Constellation Generation's failure to fill and limit the contents of the package to preclude a substantial reduction in the effectiveness of the package to ensure conformance with the requirements of 49 CFR 173.24(b)(2) was determined to have very low safety significance, using the Public Radiation Safety Significance Determination Process. The finding involved a breach of a package containing less than a Type A quantity of radioactive material during transit but did not involve a loss of containment of the radioactive material. Although the package was breached and contained contaminated material, the piece of metal protruding from the package was not contaminated with radioactive material.

Inspection Report# : [2002005\(pdf\)](#)

Physical Protection

Miscellaneous

Significance: N/A Nov 22, 2002

Identified By: NRC

Item Type: FIN Finding

Based on the sample selected for review, the PI&R team concluded that implementation of the corrective action program was adequate.

Based on the sample selected for review, the team concluded that the implementation of the Constellation Energy Group (CEG) corrective action program was adequate. In general, personnel identified problems and entered them into the corrective action program at an appropriate threshold. However, the team identified several minor valve packing and pump seal leaks within the Unit 1 and Unit 2 emergency core cooling system (ECCS) pump rooms that were not identified and captured in CEG's corrective action program. CEG generally prioritized and completed evaluations in a timely fashion and evaluated problems in adequate detail commensurate with the safety significance. The evaluations reasonably identified the causes of the problem, the extent of the condition, and provided for corrective actions to address the causes. The evaluations of equipment problems generally included operability assessments of sufficient depth to conclude that equipment remained capable of performing its safety functions. CEG also assessed reportability requirements appropriately. CEG corrective actions and improvement initiatives were generally effective in improving equipment reliability and human performance. However, inadequate corrective action follow through for a Unit 2 reactor coolant pump (RCP) support system weld deficiency contributed to a Unit 1 reactor trip. The team also noted that CEG was not fully effective in resolving some recurrent equipment deficiencies. CEG's self-assessments and corrective action program audits identified similar findings.

Inspection Report# : [2002012\(pdf\)](#)

Last modified : September 04, 2003