

Calvert Cliffs 2

4Q/2006 Plant Inspection Findings

Initiating Events

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Tagout Review Involving a Safety Related Offsite Power Supply

reen. A Green self-revealing non-cited violation (NCV) of Technical Specification (TS) 5.4.1.a was identified for failure to adequately implement tagging procedures. This resulted in an unexpected reactor trip of Unit 2 during preparation for a maintenance activity involving a safety related offsite power supply. Operators did not conduct an adequate tagout review as required by procedures. Constellation entered the deficiency into their corrective action program for resolution. Immediate corrective actions included an Operations night order requiring a challenge review for complex electrical tagouts.

The finding is greater than minor because it is associated with the human performance and configuration control attributes under the Initiating Event Cornerstone. The finding is associated with an increase in the likelihood of initiating events in that a reactor trip actually occurred. This issue is of very low safety significance since it does not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment will not be available. The cause of this finding is related to the cross-cutting aspect in the area of human performance because operators did not fully consider the operational impact of work activities.

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

Significance:  Jun 28, 2003

Identified By: Self-Revealing

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*)

Mitigating Systems

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: FIN Finding

Inadequate Post-Trip Review

Green. The inspectors identified a Green finding for the failure to adequately implement post trip review procedures required by Generic Letter (GL) 83-28, "Required Actions Based on Generic Implications of Salem ATWS Events." Specifically, Constellation's post-trip review for the Unit 2 trip on November 16, 2006, failed to identify equipment

deficiencies revealed during the trip. In addition, Constellation's post-trip review did not critically evaluate some aspects of operator performance and emergency procedure implementation. Prior to restart of the Unit these issues were discussed with Constellation management. Constellation subsequently performed additional evaluations to address the shortcomings of the initial post-trip review and appropriately entered issues in the corrective action program for resolution.

The inspectors determined that Constellation's failure to perform an adequate post-trip review for the Unit 2 reactor trip on November 16, 2006, constitutes a performance deficiency and a finding. The finding is greater than minor because it affected the reliability objective of the Equipment Performance attribute under the Mitigating Systems Cornerstone. Specifically, the failure to identify and correct equipment or procedural deficiencies revealed during a plant trip will decrease the reliability of systems that respond to initiating events to prevent undesirable consequences. This finding has a cross-cutting aspect in the area of problem identification and resolution because Constellation did not identify multiple plant and procedure deficiencies during the initial post-trip review.

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

Significance:  Sep 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Comply with TS for SRW and AFW with Watertight Doors Open

The Inspectors identified a non-cited violation (NCV) for the Service Water (SRW) and Auxiliary Feedwater (AFW) systems being inoperable without completing the actions required by Technical Specifications. Constellation did not declare AFW and SRW trains inoperable when water tight doors providing a High Energy Line Break (HELB) carrier were opened for maintenance or testing. Station personnel wrote condition report (CR) IRE-016-870 to address the control of these HELB barriers and have provided guidance to declare the trains inoperable if the water tight doors are open.

This finding is more than minor because it had a credible impact on the objective for the mitigating system cornerstone and the attribute of component availability during design basis events, specifically HELBs. The SDP phase 1 review determined a phase 1 evaluation was required since both SRW and AFW subsystems could have been impacted with the HELB barrier removed. The phase 2 evaluation yielded a very low safety significance (Green) because of the low exposure time when the watertight doors were open. A contributing cause of the finding is related to the cross cutting aspect in the area of problem identification and resolution (PI&R) because Constellation did not implement and institutionalize operating experience (OE) related to control of the HELB barriers through changes to station processes or procedures. (Section 1R15)

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

Significance:  Sep 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Comply with TS 5.4.1 for Salt Water Strainers

The inspectors identified a NCV of TS 5.4.1.a because Constellation did not initiate a condition report (CR) to document the adverse performance of the service water (SRW) heat exchanger salt water (SW) strainers during high debris loading as required in the Service Water Heat Exchanger Alarm Manual. Constellation also did not assess the operability of the strainers as required by the Corrective Action Program. Station personnel initiated CR IRE-017-018 to address the issue and assess operability of the strainers.

The finding was more than minor since it had a credible impact on the objective for the mitigating system cornerstone and the attribute of component reliability during design basis events where the SRW system was required. This finding was determined to be a finding of very low safety significance (green) because only one subsystem of the SRW system was inoperable at any time and the subsystem inoperability time was less than the maximum allowed by TS. A contributing cause of this finding was related to the cross-cutting aspect of PI&R because Constellation did not implement the corrective action program with a low threshold for identifying the problems with the SRW heat exchanger SW strainers. (Section 4OA2)

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

G**Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to establish reference values or reconfirm previous values following maintenance that affected reference values of the AFW and ECCS pumps

The inspectors identified a non-cited violation of 10 CFR 50.55a, Codes and Standards, because the licensee did not establish new reference values or reconfirm the previous reference values following maintenance that affected hydraulic or mechanical parameters on the auxiliary feedwater (AFW) and emergency core cooling system (ECCS) pumps as required by the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code for inservice testing. The licensee entered this issue into their corrective action program as IRE-014-764. The planned corrective action include a review of maintenance and IST data to determine whether new reference values are needed or reconfirm existing reference values for the AFW and ECCS pumps.

This finding is more than minor because the same issue affected a number of safety-related pumps tested and the issue was repetitive. The finding has a very low safety significance because the condition did not result in an actual failure of the AFW and ECCS pumps, or result in systems being declared inoperable for greater than their allowed technical specification outage time. A contributing cause of the finding is related to the cross-cutting aspect in the area of problem identification and resolution because the licensee did not periodically trend and assess information to identify programmatic and common cause problems.

Inspection Report# : [2006003](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

G**Significance:** Mar 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to properly control access to a high radiation area

Green. A self-revealing non-cited violation (NCV) associated with the alternate access control requirements established in accordance with 10 CFR 20.1601 (c), was identified. Specifically, the licensee failed to control and properly post a high radiation area with dose rates greater than 1,000 millirems per hour. On January 18, 2006, a nondestructive examination (NDE) worker's electronic personnel dosimeter unexpectedly alarmed when the worker was exposed to unanticipated radiation levels of up to approximately 3,000 millirems per hour. The area was not adequately surveyed by a radiation protection technician to establish the dose rate levels in the area and to properly post the area, and the worker was not made aware of the actual dose rate levels prior to entry into the area while wearing an alarming electronic personnel dosimeter. The licensee determined that the worker received less than ten millirems. This performance deficiency was entered into the licensee's corrective action program for resolution. The inspectors determined that a contributing cause of this finding was related to the cross-cutting area of human performance in that access to a high radiation area was not properly controlled.

This finding is more than minor because it is associated with the Occupational Radiation Safety attribute of exposure control and affected the cornerstone objective in that not controlling the locked high radiation area could increase personal exposure. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined that the

finding was of very low safety significance (Green) because it did not involve: (1) as low as is reasonably achievable planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. (Section 2OS1)

Inspection Report# : [2006002](#) (*pdf*)

Public Radiation Safety

Physical Protection

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

Miscellaneous

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