Calvert Cliffs 2
4Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Jun 18, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to properly implement station emergeny operating procedures. (Section 3.1)
The inspectors identified a non-cited violation of CCNPP Technical Specification 5.4.1.b because the operating crew did not properly implement station emergency operating procedures during the Unit 2 reactor trip reactor shutdown on January 23, 2004.

The finding was more than minor because it affected the Initiating Events Cornerstone in that the failures to follow station procedures complicated the plant's post-trip response and the ability of the operators to restore normal plant conditions. This finding had very low safety significance because the finding did not represent an actual loss of a safety function, and was not potentially risk significant due to an external initiating event.

A contributing cause of the finding was related to the Human Performance cross-cutting area because licensed operators did not properly implement station emergency operating procedures. (Section 3.1)
Inspection Report# : 2004008*(pdf)*

Significance: G May 28, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Combustible Material Control in Unit 1 69' West Electrical Room
The team identified a non-cited violation of License Condtion 3.E, because Calvert Cliffs Nuclear Power Plant was not maintaining control of combustible materials in the Unit 1 69' West Electrical Room as described and approved in the safety evaluation report issued September 14, 1979.

Since the finding affected the initiating events cornerstone objective the finding is more than minor. The finding is of very low safety significance because the material was not located below cable trays carrying safety related cables and the material had been evaluated in the combustible loading calculations. (Section 1RO5.4)
Inspection Report# : 2004003*(pdf)*

Significance: G 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)*

Mitigating Systems

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate corrective actions for 480v breaker testing deficiency. (Section 4OA2)

The inspector identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI. The licensee failed to promptly correct a testing deficiency identified during a CX relay failure in 1998. When action was taken in October of 2001, it was not sufficient to prevent further CX relay failures in December 2003 and February 2004.

This finding is more than minor because it affects the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and affects the availability and reliability of the 480 volt (v) electrical distribution system. The finding is of very low safety significance because the finding did not represent an actual loss of safety function and did not screen as potentially risk significant due to a seismic, fire, flooding or severe weather initiating event. The inspectors identified that a contributing cause of this finding was related to the cross-cutting area of Problem Identification and Resolution. (Section 4OA2)

Inspection Report# : 2004005*(pdf)*

Significance: W Jun 18, 2004
Identified By: Self Disclosing
Item Type: FIN Finding
Failure to adequately implement modification design review of the reactor regulating system quick open circuit. (Section 2.1.b.1)
A self-revealing event identified a finding of low to moderate safety significance, because Calvert Cliffs Nuclear Power Plant (CCNPP) did not perform a modification design review, as required by station procedures. Following a Unit 2 reactor trip on January 23, 2004, the atmospheric dump valves and turbine bypass valves automatically Quick Opened, as designed. However, the Quick Open signal did not clear when the reactor coolant temperature dropped below the Quick Open setpoint, because of a reactor regulating system relay failure. As a result, an uncontrolled cooldown of the reactor coolant system occurred, which in turn caused a loss of the normal heat removal system.

This finding was more than minor because it was considered to be a precursor to a more significant event. A Significance Determination Process Phase-3 risk analysis determined that this finding was of low to moderate safety significance, based on the change in core damage frequency. (Section 2.1.b.1

The NRC performed a supplemental inspection in accordance with Inspection Procedure 95001. Based on the results of this inspection, the NRC concluded that Constellation adequately completed a root cause evaluation of the performance deficiencies associated with this finding and completed and planned corrective actions were reasonable to address the related causes. Given Constellation's acceptable performance in addressing the reactor regulating system relay failure, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program."
Inspection Report# : 2004008*(pdf)*

Significance: G Jun 18, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to have procedures required by regulatory guide 1.33. (Section 3.2)
The inspectors identified a non-cited violation of CCNPP Technical Specification 5.4.1.a because CCNPP did not have a procedure (off-normal) for the failure of the reactor regulating system (RRS) as required by Regulatory Guide 1.33.

This finding was more than minor because if the operators had switched to the alternate channel of RRS, after the failure of the RRS relay in the X channel, the atmospheric dump valves (ADVs) and turbine bypass valves (TBVs) would have properly controlled reactor temperature and terminated the uncontrolled cooldown. This finding had very low safety significance because the finding did not represent an actual loss of a safety function, and was not potentially risk significant due to an external initiating event. (Section 3.2)

Inspection Report# : 2004008*(pdf)*

Significance: G Jun 18, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Test records for safety related work not retained by document control. (Section 2.3)
he inspectors identified a non-cited violation of very low safety significance of 10 CFR 50 Appendix B, Criterion XVII, "Quality Assurance Records," because CCNPP did not retain records of test results. From 1999 to March 2004, CCNPP did not retain wiring verification point-to-point test records for modifications of safety-related circuits. As a result, after the records are transferred to Records Management, verification of the work performed cannot be done.

This finding was more than minor because the failure to retain the required records was not an isolated example, and the records were irretrievably lost, similar to example 1.b in NRC Inspection Manual 0612 Appendix E. This finding was not suitable for a Significance Determination Process evaluation, but was reviewed by NRC management and determined to be of very low safety significance.

A contributing cause of this finding was related to the Human Performance cross-cutting area because station personnel did not adequately implement written instructions in a safety-related procedure. (Section 2.3)

Inspection Report# : 2004008*(pdf)*

Significance: G Jun 18, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to adequately implement modification work instructions for wiring terminations. (Section 2.2.b.1)
A self-revealing event identified a non-cited violation of very low safety significance of Technical Specification 5.4.1, because CCNPP did not adequately implement modification work instructions. As a result, during a plant event, recovery actions were delayed because operators were unable to reset the "B" channel of the safety injection actuation signal (SIAS) system from the control room.

This finding was more than minor because the SIAS system was returned to service, following modification work, and subsequently became unable to perform its function, similar to example 5.b in NRC Inspection Manual 0612 Appendix E. This finding had very low safety significance because the finding did not represent an actual loss of a safety function.

A contributing cause of this finding was related to the Human Performance cross-cutting area because maintenance technicians did not adequately implement written work instructions. (Section 2.2.b.1)

Inspection Report# : 2004008*(pdf)*

Significance: G May 28, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to provide protection in accordance with 10 CFR Part 50, Appendix R, Section III.G.2
The team identified a non-cited violation of 10 CFR Part 50, Appendix R, Section III.G.2, because Calvert Cliffs Nuclear Power Plant utiilized manual actions to operate equipment necessary for achieving and maintaining hot shutdown in lieu of providing protection to the cables associated with that equipment, as required by the regulation.

In accordance with the guidance provided in inspection procedure 71111.05, "Fire Protection", (revision dated 3/6/03) this finding is greater than minor. The finding is of very low safety significance because the manual actions are reasonoable and are expected to meet the criteria outlined in the Enclosure 2 of inspection procedure 71111.05. (Section 1RO5.5)
Inspection Report# : 2004003*(pdf)*

Significance: G May 28, 2004
Identified By: NRC
Item Type: FIN Finding
Inadequate Breaker Coordination
The team identified a finding in that protective relay settings for the bustie circuit breakers for the 1A and OC emergency diesel generators were not adequately coordinated with the feeder breakers for the 4kV/480V service transformers supplying the 480VAC load centers.

Because the finding affected the design control attribute of the mitigating systems cornerstone, it was more than minor. Since the issue did not result in an actual loss of a safety function of a single train of equipment, the issue was determined to be of very low safety significance.
Inspection Report# : 2004003*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement Effective Corrective Actions Associated with Component Mispositioning Events
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Actions, which requires that measures shall be established to assure significant conditions adverse to quality are promptly identified and corrected. Specifically, the licensee failed to implement effective corrective actions for significant conditions adverse to quality associated with component mispositioning events. A similar failure was first identified as NCV 05000317; 05000318/2003009-01 and documented in NRC Inspection Report IR-2003-009, issued November 7, 2003. Since then, two additional significant component mispositioning events occurred between October 29, 2003, and March 31, 2004 both resulting in actual consequences to safety-related systems.

This finding is greater than minor because it affects the Reactor Safety, Mitigating Systems attribute of human performance, and the availability, reliability, and capability objective of the mitigating systems cornerstone. This finding was of very low safety significance because none of the events resulted in the actual loss of a system safety function. The inspectors identified that a contributing cause of this finding was related to the cross-cutting area of Problem Identification and Resolution.
Inspection Report# : 2004004*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Prevent Recurrence of a Degraded Bearing Condition
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Actions, which requires that measures shall be established to assure significant conditions adverse to quality are promptly identified and corrected. Specifically the licensee failed to promptly identify a significant condition adverse to quality associated with the #10 upper crankcase bearing on the 2A Emergency Diesel Generator (EDG). This condition if left uncorrected could have resulted in the failure of the EDG. This degraded condition occurred in 1995 and again in October 2003, on the 2A EDG. As a result of the October 2003 degraded condition, the licensee requested an Notice of Enforcement Discretion (NOED) since repair activities would exceed the allowable outage times as specified in Technical Specification (T.S.) 3.8.1, "A.C. Sources - Operating". The NRC granted a NOED to the licensee on October 10, 2003.

This finding is greater than minor because it affects the Reactor Safety, Mitigating Systems attribute of equipment performance, and the availability, reliability, and capability objective of the mitigating systems cornerstone. If left uncorrected, this condition could have led to the failure of the 2A EDG. This finding was of very low safety significance because the degraded condition did not result in an actual failure of the EDG to perform its safety function. The inspectors identified that a contributing cause of this finding was related to the cross-cutting area of Problem Identification and Resolution. (Section 1R12)

Inspection Report# : 2004004*(pdf)*

Significance: G Jan 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
High Pressure Safety Injection System Operation Outside of Design Basis (Section 1R21.b.2)
The team identified a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, Design Control, for constellation Energy Group's (CEG) failure to correctly translate the emergency core cooling system (ECCS) design basis into the HPSI system operating instructions and procedures. Specifically, for shot durations during surveillance test activities, the HPSI loop isolation valve was placed in a condtion that could impact core cooling if the redundant train of HPSI were to fail.

The finding was more than minor because it affected the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events (i.e., loss of coolant accidents) to prevent undersirable consequences (core damage). The finding was associated with the attribute of configuration control (operating equipment lineup). The finding was of very low safety significance because it represented the loss of single train of HPSI for less than the TS 3.5.2.A allowed outage time (72 hours) during each occurrence. (Section 1R21.b.2)
Inspection Report# : 2004002*(pdf)*

Significance: G Jan 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
HPSI Design Support/Seismic Structural Records not Retrievable (Section 1R21.b.1)
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVII, Quality Assurance Records, related to the licensee's inability to retrieve records required to furnish evidence of the adequate performance of activities affecting the quality of the high pressure safety injection (hPSI) system. Specifically, quality records, identifiable with both the design change details for a Unit 2 HPSI pipe support snubber installation and the design calculations for the seismic adequacy for structural platforms in the refueling water tank (RWT) rooms in Units 1 & 2, were not retrievable.

The finding was evaluated using Manual Chapter 0612, Appendix E, example 1.b and determined to be more then mainor because the records were irretrievable lost. The finding wa associated with the attribute of design control (initial design, plant modifications). This issue is considered a very low safety significance finding because, while the required records were not retrievable, an as-built design review was conducted by the licensee which demonstrated the structural adequacy of the existinig field configurations (Section 1R21.b.1)
Inspection Report# : 2004002*(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Jun 18, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to recognize an unusual event during the Unit 2 reactor trip. (Section 4.1)
The inspectors identified a non-cited violation of 10CFR50.54(q) because the operating crew did not properly recognize plant conditions commensurate with an Unusual Event in accordance with the emergency plan and implementing procedures during the Unit 2 reactor trip on January 23, 2004.

This finding was more than minor because it effected the response organization performance attribute of the Emergency Preparedness Cornerstone in that failure to properly recognize plant conditions commensurate with an Unusual Event classification. This finding was of very low safety significance, because it involved an implementation problem during an actual event and the CCNPP staff failed to identify the Unusual Event in the post trip review.

This finding is related to the Human Performance cross-cutting area because the operating crew did not properly recognize plant conditions commensurate with an Unusual Event in accordance with the emergency plan during a Unit 2 excessive steam demand event on January 23, 2004. (Section 4.1)
Inspection Report# : 2004008*(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : March 09, 2005