

Turkey Point 4

1Q/2005 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Mar 31, 2005

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Plant Shutdowns Due to Drop of Shutdown Bank B Rod E-11 During Low Power Physics Testing Due to an Inadequate Vendor Procedure

A Green self-revealing Non-Cited Violation (NCV) of 10 CFR 50, Appendix B, Criterion V was identified for the failure to include adequate instructions in procedures which resulted in two manual reactor trips due to two rod drop events.

This finding was greater than minor because it involved the procedure quality and adequacy attributes of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown and power operations. The finding was analyzed using the Significance Determination Process (SDP) Phase 1, and was determined to be of very low safety significance (Green). While the finding resulted in two events where Shutdown Bank B Rod E-11 dropped into the core and subsequent manual reactor trips due to being in a conditions where Technical Specification 3.0.3 was entered, the finding did not result in the likelihood that mitigation equipment or functions would not be available.

Inspection Report# : [2005002\(pdf\)](#)

Significance: G Dec 31, 2004

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

High Head Safety Injection Pump Inoperable Due to an Increase in a Previously Identified Oil Leak

A self revealing Non-Cited Violation (NCV) of Technical Specification (TS) 3.5.2, Action statement c. occurred as a result of the licensee discovering that one of the four required High Head Safety Injection (HHSI) pumps was inoperable for greater than 30 days, and the unit was not shut down, as required. The pump was discovered to have less than the amount of lube oil needed for it to complete its required safety function and it was determined that this condition had existed for 60 days.

This finding was greater than minor because it involved the equipment performance attribute of the mitigating system cornerstone and affected the objective of ensuring that equipment is available and capable to respond to an event. An SDP Phase 3 was performed by a Regional Senior Reactor Analyst and determined that this finding was of very low safety significance (Green) because one of the remaining three HHSI pumps (two for Unit 3 and one for Unit 4) could perform its safety function. This finding directly involved cross cutting aspects of problem identification and resolution, that being inadequate assessment and initial corrective actions which resulted in the 4B HHSI pump being inoperable from June 6, 2004 until August 5. (Section 4OA3.1)

Inspection Report# : [2004005\(pdf\)](#)

Significance: G Oct 18, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement Adequate Test Controls

The inspectors identified a non-cited violation (NCV) of 10 CFR 50 Appendix B, Criterion XI, Test Controls, for inadequate test controls. These controls were associated with tests developed and implemented for demonstrating that replacement safety-related multiplier/divider cards and peripheral amplifiers manufactured by NUS, were acceptable like-for-like replacement of Hagan components in the analog computer and for time response tests performed by the licensee for the original Hagan square root module and the summator module with 10- and 39-micro farad capacitors. The licensee entered this issue into their corrective action program as 2004-10337-CR, for tracking the development of approved test procedures and completion of response time testing.

This finding is greater than minor because inadequate test controls could result in an inadequate test of equipment in the mitigating system cornerstone and thereby result in improper equipment operation. This could result in plant operation outside of analyzed conditions. Such operation could affect the availability, reliability, and capability of mitigating systems to respond to initiating events and prevent undesirable

consequences. This finding is of very low safety significance because it did not result in a loss of system function per Generic Letter 91-18. (Section 40A2.c(2)(a))

Inspection Report# : [2004011\(pdf\)](#)

G

Significance: Oct 18, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Use Adequate I&C Procedures for Refurbishment of Westinghouse Hagan Modules

An NCV of 10 CFR 50 Appendix B, Criterion V, Instructions, Procedures and Drawings, was identified by the inspectors for the licensee's failure to prescribe by documented instructions or procedures of a type appropriate to the circumstances, activities associated with refurbishment and/or repair of reactor protection system circuit components. Specifically, technicians were using uncontrolled, unreviewed and unapproved checklists, as well as uncontrolled Excel spreadsheets, in order to affect repairs and refurbishment to Hagan modules associated with safety-related functions in the reactor protection system. The licensee entered this issue into their corrective action program as 2004-10337-CR, for the evaluation, benchmark and drafting of more formal instructions for the conduct of the Hagan Repair Program.

This finding is greater than minor because inadequate procedures which are used to repair and refurbish Hagan modules could result in changes to the performance characteristics of equipment in the mitigating system cornerstone that are less conservative than the original equipment manufacturer's (OEMs) specifications. Such changes, e.g., time response, could result in plant operation outside of analyzed conditions and could affect the availability, reliability, and capability of mitigating systems to respond to initiating events, and prevent undesirable consequences. This finding is of very low safety significance because it did not result in a loss of system function per Generic Letter 91-18. (Section 40A2.c(2)(b))

Inspection Report# : [2004011\(pdf\)](#)

G

Significance: Oct 18, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Establish Adequate Interim Corrective Action to Preclude Use of Unqualified Capacitor

An NCV of 10CFR50 Appendix B, Criterion XVI, Corrective Action, was identified by the inspectors for the licensee's failure to take adequate corrective action to preclude the use of an inadequately evaluated alternate replacement capacitor. This issue was entered into the licensee's corrective action program as 2004-10324-CR, to revise the Instock Disposition Status of Passport Evaluation 080201, Stock Code 0003546-2, to ensure that the capacitor cannot be used for Hagan modules.

This finding is greater than minor because the licensee's actions to preclude the use of an unqualified capacitor in safety-related applications were not sufficient to prevent an I&C technician from requesting it from the stores. The part was listed as acceptable for use in the vendor technical manual, and was available from stores. The use of this unqualified capacitor in equipment in the mitigating system cornerstone could result in changes to equipment performance characteristics, and result in plant performance outside of analyzed conditions. Such operation could affect the availability, reliability, and capability of mitigating systems to respond to initiating events and prevent undesirable consequences. This finding is of very low safety significance because it did not result in a loss of system function per Generic Letter 91-18. (Section 40A2.c(2)(c))

Inspection Report# : [2004011\(pdf\)](#)

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Significance: Sep 25, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Corrective Action for Scaffold Construction Deficiencies

A Green NCV was identified for failing to implement adequate corrective actions per 10 CFR 50, Appendix B, Criterion XVI, for issues related to the construction of scaffolding in proximity to safety related equipment or fire protection components.

This finding is more than minor because it affected the Mitigating Systems cornerstone. Improper construction of scaffolding, and lack of engineering review of scaffolding not built in accordance with the procedure, could prevent proper operation of fire protection features, limit or prevent access to components required of emergency response, or render equipment inoperable as a result of a seismic event. This finding is of very low safety significance because it did not result in an actual loss of safety function and would not render equipment inoperable due to seismic events. The finding is related to the cross-cutting element of problem identification and resolution, that being ineffective and untimely corrective actions. (Section 40A2.2)

Inspection Report# : [2004004\(pdf\)](#)

G

Significance: Jun 25, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement Configuration Control of Steam Generator Water High-high Level Instrument Uncertainty Calculation of Record

A non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified for failure to implement configuration control measures for the calculation of record for the steam generator water high-high level overfill protection function instrument uncertainty calculation. This resulted in Calculation WCAP-12745, "Westinghouse Set point Methodology for Protection Systems, Turkey Point Units 3 & 4 Thermal Uprate Project," Revision 1, dated December 1995, not containing the correct "Allowable Value" for the steam generator high-high level protection function set point.

This finding is greater than minor because inadequate design control for engineering calculations can propagate incorrect information into subsequent plant modifications. This could eventually result in plant operation outside of analyzed conditions, which could affect the availability, reliability, and capability of mitigating systems to respond to initiating events and prevent undesirable consequences. This finding is of very low safety significance because it is a design deficiency that did not result in a loss of system function per Generic Letter 91-18. (Section 1R21.23)

Inspection Report# : [2004008\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

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

Miscellaneous

Last modified : June 17, 2005