

Turkey Point 3

2Q/2004 Plant Inspection Findings

Initiating Events

Mitigating Systems

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 overflow 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\(pdf\)](#)

Significance:  Mar 27, 2004

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Operation With Two Charging Pumps Inoperable in Excess of Technical Specifications Allowable Limits

A self revealing non-cited violation of Technical Specification 3.1.2.3 was identified for failure to maintain at least two charging pumps operable. This condition occurred when Isolation Valve 3-280H for the 3C Charging Pump interlock pressure control switch PS-3-201C was mispositioned closed.

The 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. The finding was determined to be of very low safety significance in accordance with the Significance Determination Process (SDP) phase 2, since one charging pump remained operable and available to perform the safety function. (Section 4OA3)

Inspection Report# : [2004002\(pdf\)](#)

Significance:  Mar 26, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify and Implement Effective Corrective Actions to Prevent Recurring Charging Pump Functional Failures

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, for the licensee's failure to identify and implement effective corrective actions to prevent recurring charging pump valve seat functional failures. These failures constituted repetitive significant conditions adverse to quality.

This finding is greater than minor because it affected the equipment performance attribute and impacted the Mitigating System cornerstone objective to ensure availability of systems that respond to initiating events to prevent undesirable consequences. The charging pump valve seat failures were determined to be of very low safety significance because the failures did not reduce the number of available pumps below that required for the system to perform its safety function. (4OA2.a)

Inspection Report# : [2004006\(pdf\)](#)

Significance:  Feb 13, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Install Full Area Fire Detection and Fixed Suppression Systems in the Unit 3 and 4 Mechanical Equipment Room

A non-cited violation (NCV) of 10 CFR 50, Appendix R, Section III.G.3 and License Condition 3.D was identified for failure to provide full area fire detection and a fixed suppression system in the Unit 3 and 4 mechanical equipment room for fires in Fire Area (FA) MM [Fire Zone (FZ) 97]. Upon discovery, the licensee declared the detection and suppression inoperable, established an hourly fire watch for FZ 97, and entered this issue into its corrective action program.

The finding adversely affected the fire detection and suppression capability defense-in-depth elements. The finding is greater than minor because it is associated with the protection against external factors attribute and degraded the reactor safety mitigating systems cornerstone objective. Because the fire ignition frequency was low, the fire detection in the emergency recirculating filter was not degraded, and alternative shutdown systems and procedures were available to mitigate a fire in this area, the finding was determined to have very low safety significance. (Section R05.10.b.2)
Inspection Report# : [2004007\(pdf\)](#)

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Significance: Dec 27, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation

Failure to Identify and Use an Appropriate Acceptance Criteria for the Main Oil Pump Internals Clearances and Main Oil Pump Suction Check Valve Leakage

A self revealing non-cited violation was identified for failure to comply with 10 CFR 50, Appendix B, Criterion III, "Design Control." The licensee failed to identify and specify in procedures the appropriate acceptance criteria for the main oil pump (MOP) internals clearances and the MOP suction check valve leakage, to ensure the operability of the 'B' Auxiliary Feedwater Pump (AFW). As a result, during surveillance testing, the 'B' AFW Pump experienced a lubrication failure which damaged the pump outboard thrust bearings.

This finding is greater than minor because it involved the design control attribute of the mitigating system cornerstone, which could affect the objective of ensuring that equipment is available and capable of responding to an event. The finding was of very low safety significance in accordance with the Significance Determination Process (SDP) Phase 1 worksheet, because it did not represent an actual loss of the safety function of the AFW system and it did not represent an actual loss of safety function of a single train of AFW for greater than the Technical Specification allowed outage time. (Section 1R15)
Inspection Report# : [2003005\(pdf\)](#)

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Significance: Sep 27, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation

Failure to Maintain Design Documentation to Prevent Inadvertent Loss of Both Trains of AFW Automatic Actuation Logic and Relays

A self-revealing finding was identified concerning a failure to comply with 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings." Licensee drawings and instructions used to research Clearance Zone 28-01 relay tagouts were not sufficient to assure that the design basis Engineering Safety Feature Actuation Signal (ESFAS) function of these components was protected. As a result, a plant configuration was established which rendered the automatic start of all AFW pumps on a Low-Low Steam Generator Level signal unavailable while U3 was in Operational Mode 3.

This finding is greater than minor since it affected the Mitigating System Cornerstone objective for Equipment Availability and had an actual safety impact of rendering the automatic start of all AFW pumps on a Low-Low Steam Generator Level signal unavailable while in Operational Mode 3. This finding was reviewed using the Significance Determination Process and was determined to be of very low safety significance because for the two applicable design basis accidents requiring this signal, alternative methods would have started the AFW pumps and the system would have been able to perform its safety function. (Section 4OA3.1)
Inspection Report# : [2003004\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

G**Significance:** Mar 27, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Correctly Calibrate Selected Effluent Monitoring Instrumentation In Accordance With ODCM Requirements

The inspectors identified a non-cited violation (NCV) of Technical Specification (TS) 6.8.1.d for failure to correctly calibrate selected effluent monitoring instrumentation in accordance with Offsite Dose Calculation Manual (ODCM) specifications. Specifically, the licensee failed to use National Institute of Standards and Technology (NIST) traceable secondary sources related to the initial monitor calibrations during the most recent calibrations of the gas decay tank noble gas effluent monitor (R-14), the liquid radioactive waste effluent monitor (R-18), the Unit 3 (U3) and Unit 4 (U4) Steam Jet Air Ejector monitors (R-3/4-15), and the U3 and U4 Steam Generator Blow-Down monitors (R-3/4-19).

This finding is greater than minor because it adversely affects the effluent monitoring equipment attribute of the Public Radiation Safety cornerstone in that failure to use NIST traceable secondary sources could impair the accuracy of effluent monitoring equipment required to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operations. The finding is of very low safety significance because there was no failure to assess dose to the public and doses did not exceed Appendix I to 10 CFR Part 50 design criteria. (Section 2PS1)

Inspection Report# : [2004002\(pdf\)](#)**G****Significance:** Mar 27, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain QC Activities for the Conduct of Representative Sampling and Monitoring of Particulates in the Main Plant Vent Airborne Effluents

The inspectors identified a non-cited violation of TS 6.8.1.e for failure to implement Quality Control activities for the conduct of representative sampling and monitoring of particulates in the main plant vent airborne effluents. Specifically, the main plant vent airflow flow characteristics were outside of the design specified exhaust flowrate and resultant velocities necessary to maintain isokinetic sampling of particulates by the main plant vent Sample Particulate Iodine, and Noble Gas (SPING) monitoring and sampling equipment (RAD 6304).

This finding is greater than minor because it adversely affects the effluent monitoring program and process attribute of the Public Radiation Safety cornerstone in that failure to maintain isokinetic sampling could impact representative sampling and subsequent monitoring of particulates in airborne effluents released into the public domain as a result of routine civilian nuclear reactor operations. The finding is of very low safety significance because there was no failure to assess dose to the public from airborne particulates released from the main plant vent and doses did not exceed Appendix I to 10 CFR Part 50 design criteria. (Section 2PS1)

Inspection Report# : [2004002\(pdf\)](#)

Physical Protection

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

Miscellaneous

Significance: N/A Mar 26, 2004

Identified By: NRC

Item Type: FIN Finding

Identification and Resolution of Problems

The licensee was generally effective at identifying problems at a low threshold and entering them into the corrective action program. One exception was noted regarding the failure to identify and implement effective corrective actions to prevent recurring charging pump valve seat functional failures. The licensee adequately prioritized issues and performed evaluations that were technically accurate and of sufficient depth. One negative observation was identified for not consistently classifying Condition Reports (CRs) at an appropriate significance level as warranted, in accordance with the corrective action program procedure guidance. The inspectors concluded that the licensee was vulnerable to repetitive equipment failures by routinely not performing root cause evaluations when it is warranted, based on the significance of the condition. A second negative observation was identified involving a weakness in documentation in the reviewed CRs, primarily related to severity level classification justification. Formal root cause evaluations for significant conditions adverse to quality were normally thorough and detailed. The licensee's self-assessments and audits were effective in identifying deficiencies in the corrective action program. Based on discussions conducted with plant employees from various departments the inspectors did not identify any reluctance to report safety concerns.

Inspection Report# : [2004006\(pdf\)](#)

Last modified : September 08, 2004