

Nine Mile Point 1

4Q/2005 Plant Inspection Findings

Initiating Events

G**Significance:** Oct 03, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Manage Risk Associated With Maintenance on Power Board 11 Breaker Resulted in a Reactor Scram.

The inspectors identified an NCV of 10 CFR 50.65(a)(4) for the failure to assess and manage the increase in risk associated with power board maintenance which resulted in an unplanned reactor scram. The performance deficiency associated with this event was the failure to assess and manage the risk and recognize the plant impact associated with power board 11 breaker maintenance coincident with reactor protection system testing on the other channel. A contributing cause of the finding is related to the cross-cutting element of human performance.

The finding is greater than minor because it is associated with the Initiating Events Cornerstone attribute of human performance and affects the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. In addition, the finding relates to the maintenance risk assessment and risk management issue of the failure of the licensee's risk assessment to consider maintenance activities that could increase the likelihood of initiating events. The finding is also associated with the Mitigating Systems Cornerstone because the loss of power board 11 caused a loss of one train of feedwater coolant injection. The finding was determined to be of very low safety significance in accordance with Phase 3 of the Reactor Safety SDP.

Inspection Report# : [2005004\(pdf\)](#)

Mitigating Systems

G**Significance:** Nov 04, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Incomplete and Untimely Corrective Actions for Fire Brigade Performance Issues

The NRC identified a Green non-cited violation (NCV) of 10 CFR 50.54(a)(1) for failure to take complete and timely corrective actions for fire brigade drill failures in May 2004. The inspectors found that a proposed corrective action to develop qualification standards for fire brigade leaders and brigade members had not been completed, and a corrective action to develop performance based assessment tools was not completed until September 16, 2005. These corrective actions would have addressed some of the identified causes for a drill failure in September 2005. The inspectors also identified that effective corrective actions had not been taken for fire brigade performance issues that resulted in a drill failure in 2003. The actions taken were limited to reinforcing existing assembly practices and did not address brigade member concerns about lack of familiarity with plant access and egress routes. Corrective actions are planned to develop objective standards for fire brigade performance and to revise the drill assessment tools to reflect those standards.

The failure to take complete and timely corrective actions to address fire brigade performance issues was more than minor because it affected the protection against external factors attribute of the Mitigating Systems Cornerstone in that it adversely impacted manual fire suppression capability. The finding is not suitable for SDP evaluation, but has been reviewed by NRC management and is determined to be a finding of very low safety significance (Green). Although the lack of fire brigade performance standards and evaluation criteria contributed to several drill failures, the finding was of very low safety significance because fire brigade performance has been satisfactory during the majority of drills. The cause of this finding was related to the cross-cutting element of problem identification and resolution in that it was related to incomplete and untimely corrective actions.

Inspection Report# : [2005007\(pdf\)](#)

G**Significance:** Jun 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Multiple Examples of Cable Splices Inside Unit 1 Drywell That Were Not Environmentally Qualified

The inspectors identified a non-cited violation (NCV) for multiple types of cable splices at Unit 1 that were not environmentally qualified. 10 CFR 50.49(f) requires that each item of electric equipment important to safety within the scope of 10 CFR 50.49(b) must be qualified by one of several methods described in that section. As of April 2005, there were 11 Okonite cable splices, 47 Raychem splices and one barrel-type butt splice in the Unit 1 drywell that were not environmentally qualified because these splices did not conform to the qualified configurations described in Procedure N1-EMP-GEN-003, "Insulating Medium and Low Voltage Power Connections Control and Instrumentation Cables." These cable splices were used in the control circuitry of motor-operated valves and solenoid-operated valves that were required for accident mitigation and the circuitry of temperature instruments that were required for accident monitoring. This electric equipment is within the scope

of 10 CFR 50.49(b).

The finding is greater than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affects the cornerstone objective of equipment reliability. The issue was a qualification deficiency that the licensee had evaluated in accordance with Generic Letter (GL) 91-18, and was determined to be of very low safety significance (Green) because the unqualified cable splices were determined to be either operable (i.e., insignificant leakage currents when subject to accident environment), or in a condition where the function of the inoperable cable splice (reactor vent valve unable to open) could be bypassed by an alternate mitigating method (alternate reactor vent path) as prescribed in an existing emergency operating procedure (EOP) to achieve similar accident mitigation results. The unqualified cable splices were replaced by qualified ones during the April refueling outage. The inspectors identified that a contributing cause of this finding was related to the cross-cutting area of problem identification and resolution. The relevant causal factor was problem identification because the nonconforming splices in the drywell were not identified by the engineering staff in a timely manner.

Inspection Report# : [2005003\(pdf\)](#)

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Significance: Mar 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform a 50.59 Screen During Development of an Emergency Condenser Capacity Test

The inspectors identified a non-cited violation (NCV) of Unit 1 TS 6.4.1.a concerning an inadequate procedure review and approval process related to the development of procedure N1-ST-V19, "Emergency Cooling System - Heat Removal Capability Test at High Power." Specifically, the licensee incorrectly determined that all aspects of the activity were controlled by other processes, thereby negating the requirement for a 10 CFR 50.59 screen. Subsequently it was determined that the procedure also contained changes that affect operation and control of other systems and therefore that a 10 CFR 50.59 screen should have been completed. The performance deficiency associated with this event is a failure to perform a 10 CFR 50.59 screen when one was required.

The finding is greater than minor because it is associated with the Mitigating Systems Cornerstone attribute of procedure quality and affected the associated cornerstone objective of ensuring the capability of the emergency condenser system, a core decay heat removal system, to respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance in accordance with phase 1 of the SDP because it was not a design or qualification deficiency, did not represent an actual loss of the emergency condenser system safety function, and was not potentially risk significant due to seismic, flood, fire or weather related initiating events.

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

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Significance: Mar 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Adequately Assess Risk Associated with Maintenance on the Control Room Ventilation System

The inspectors identified a non-cited violation (NCV) of 10 CFR 50.65(a)(4) for the failure to adequately assess the increase in risk that resulted from maintenance on the Unit 1 control room ventilation system. Specifically, no assessment of risk was performed prior to opening doors which served as barriers between the mild environment of the control room and the potential harsh environment of the Turbine Building resulting from a high energy line break (HELB). The performance deficiency associated with this event is failure to adequately assess the increased risk from a HELB in the Turbine Building with doors in the HELB boundary open to the Control Room.

The finding is more than minor because if left uncorrected, it would become a more significant safety concern in that actions to assess and manage increases in risk may not have been implemented. The finding was determined to be of very low safety significance in accordance with phase 3 of the SDP because it resulted in a change in core damage frequency (CDF) significantly below the green/white risk threshold.

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

Barrier Integrity

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Significance: Oct 03, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Unacceptable Preconditioning of Torus-to-Drywell Vacuum Relief Valves During Surveillance Testing.

The inspectors identified an NCV of 10 CFR 50 Appendix B, Criterion XI, "Test Control," for failure to conduct testing to determine torus-to-drywell vacuum relief check valve's opening force under actual in-service conditions. Specifically, four vacuum relief check valves were being cycled open and closed prior to measurement of their opening force. The performance deficiency associated with this issue is an inadequate surveillance procedure, in that the licensee failed to recognize that cycling all of the torus-to-drywell vacuum relief valves prior to measurement of their opening force was unnecessary and constituted unacceptable preconditioning. (i.e. potentially altering the amount of force required to open the valves during the actual test)

The finding is greater than minor because it is associated with the Barrier Integrity Cornerstone attribute of the procedure quality of a risk important surveillance and affects the cornerstone objective of providing reasonable assurance that physical design barriers (specifically, the primary containment) protect the public from radionuclide releases caused by accidents or events. The finding is determined to be of very low safety significance (Green) in accordance with Phase I of the Reactor Safety Significance Determination Process (SDP) because it did not represent a degradation of the radiological barrier function provided for the control room, spent fuel pool, or standby gas treatment system, did

not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere, and did not represent an actual open pathway in the physical integrity of reactor containment or involve an actual reduction in defense-in-depth for the atmospheric pressure control or hydrogen control functions of the reactor containment.

Inspection Report# : [2005004\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

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

Miscellaneous

Significance: N/A Nov 04, 2005

Identified By: NRC

Item Type: FIN Finding

Identification and Resolution of Problems

The team determined that Constellation's Nine Mile Point (NMP) Nuclear Power Station was effective at identifying problems and entering them into the corrective action program (CAP). Relatively few deficiencies were identified by external organizations (including NRC) that had not been previously identified by the licensee. Audits and self-assessments were generally thorough; however, the inspectors did identify a few missed opportunities to identify issues during internal assessments. Once entered into the CAP, issues were screened and prioritized in a timely manner using established criteria. Items entered into the CAP were properly evaluated commensurate with their safety significance. The causal evaluations for equipment and performance issues were complete, and proposed corrective actions addressed the identified causes. Corrective actions were generally effective and typically implemented in a timely manner. However, corrective actions for previous fire brigade drill failures were incomplete and untimely.

Inspection Report# : [2005007\(pdf\)](#)

Last modified : March 03, 2006