Nine Mile Point 2

Initiating Events



Significance: Aug 23, 2002 Identified By: Self Disclosing Item Type: NCV NonCited Violation

Failure to implement corrective actions for valve packing leaks inside the drywell

A violation of 10 CFR 50, Appendix B, Criterion XVI, (measures be established to assure that conditions adverse to quality are promptly identified and corrected) dispositioned as a non-cited violation was identified for failure to implement corrective actions for valve packing leaks inside the drywell which caused several plant shutdowns. Specifically, the failure to take effective corrective actions in a timely manner to address packing leakage from valve 2RCS*MOV18A that was observed in September 2000 and March 2001 led to the December 15, 2001, reactor scram which was a self-revealing event. This finding is more than minor because it could reasonably be viewed as a precursor to a more significant event, which in this case was a 6 gpm reactor coolant system (RCS) leak that necessitated a manual reactor scram (an initiating event) on December 15, 2001. This issue was evaluated using Phase 1 of the reactor safety significance determination process (SDP) and determined to be of very low safety significance (green). Although the issue increased the transient initiator contributor, it did not contribute to the likelihood of a loss-of-coolant accident, it did not contribute to the likelihood mitigating equipment or functions would be unavailable and it did not increase the likelihood of an external event.

Inspection Report# : <u>2002009</u>(*pdf*)

Mitigating Systems



Significance: Aug 02, 2002 Identified By: NRC Item Type: FIN Finding

Lack of adequate corrective action to address longstanding problems with the Unit 2 instrument air (IA) system

The inspection team identified a lack of adequate corrective action to address longstanding problems with the Unit 2 instrument air (IA) system. Following an IA system modification in 1993, problems were identified with IA compressor cooling water pump trips and cycling, as well as the need for operator action to restart the IA compressors after a loss of offsite power which could affect the reliability of the IA system. Although the problems were entered in the corrective action program, there was a history of cancelled deviation event reports (DERs) and longstanding operator work-arounds associated with the IA system. The finding was considered to be of very low safety significance (Green) based on a Phase 3 risk evaluation because cycling of the cooling water pumps and the loss of offsite power were infrequent events, cooling water flow to the air compressors could be restored by restarting the redundant cooling water pump, it was very unlikely that both pumps would fail at the same time, procedures existed for manually restarting the compressors following a loss of power, and there were several additional failures that must also occur for a loss of instrument air to result in core damage. There was no violation of NRC regulations since the IA system was not safety-related.

Inspection Report# : 2002010(pdf)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety



Identified By: NRC

Item Type: FIN Finding

During the Spring 2002 refueling outage, hydraulic control unit (HCU) valve maintenance resulted in 6.91 person-rem of collective exposure based on an exposure estimate of 1.8 person-rem

During the Spring 2002 Unit 2 refueling outage, hydraulic control unit (HCU) valve maintenance resulted in 6.91 person-rem of collective exposure based on an exposure estimate of 1.8 person-rem. This work activity was 283 percent above the estimate. The occupational radiation safety significance determination process screening criteria for work activity exposure greater than 5 person-rem and greater than 50 percent above estimated were exceeded. There were two performance deficiencies that were attributed to this exposure overrun. There was an 83 percent increase in work-hours and exposure due to the improper installation of 139 solenoid operated valve spring clips and air supply hoses that required rework. In addition, after the scram at the start of the outage, rather than isolating and draining the scram discharge volume (SDV) piping immediately after the scram, as is typically done, the licensee left the SDV connected and pressurized to the reactor coolant system in preparation for a outage in-service test. Although leaving the SDV connected to the reactor coolant system was a planned evolution, radiation protection personnel were not involved in the planning activities. This resulted in 73 percent higher dose rates during HCU maintenance due to an outage crud burst spreading into the SDV piping. Constellation Nuclear's three-year rolling average (99-01) is 179 person-rem, which is below the SDP criteria of 240 person-rem for Boiling Water Reactors (BWRs), therefore, overall ALARA performance has been effective and this finding is of very low safety significance.

Inspection Report# : 2002006(pdf)





Item Type: FIN Finding

During the Spring 2002 refueling outage, under-vessel work activities resulted in collective exposures of 47.2 person-rem based on 18 person-rem estimated for the work activities

During the Spring 2002 Unit 2 refueling outage, under-vessel work activities resulted in collective exposures of 47.2 person-rem based on 18 person-rem estimated for the work activities. After giving credit for higher dose rates than expected (9.5 person-rem), this work activity was 72 percent above a 27.5 person-rem adjusted estimate. The occupational radiation safety significance determination process screening criteria for work activity exposure greater than 5 person-rem and greater than 50 percent above estimated were exceeded. The performance deficiency that resulted in the exposure overrun was due to inexperienced and poorly trained personnel, and vendor equipment problems. Constellation Nuclear's three-year rolling average (99-01) is 179 person-rem, which is below the SDP criteria of 240 person-rem for Boiling Water Reactors (BWRs), therefore, overall ALARA performance has been effective and this finding is of very low safety significance. Inspection Report# : 2002006(pdf)

Significance: N/A Mar 30, 2002 Identified By: Licensee Item Type: NCV NonCited Violation Licensee did not properly provide audible alarming dosimetry for a control rod drive replacement high radiation area entry. The licensee did not properly provide audible alarming dosimetry for a control rod drive replacement high radiation area entry as required by TS 6.12.1. Headsets prevented workers from hearing alarming electronic dosimeters. This finding of very low significance was identified by the licensee and is a violation of NRC requirements which met the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as a non-cited Violation (NCV). Inspection Report# : <u>2002002(*pdf*</u>)

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: G May 18, 2002

4Q/2002 Inspection Findings - Nine Mile Point 2

MALFUNCTION OF THE FCV POSITION LINKAGE RESULTED IN EXCEEDING RATED THERMAL POWER.

On May 24, 2001, the position feedback linkage for the B recirculation flow control valve (FCV) caused cycling of the FCV and resultant reactor core thermal power swings of between 103 percent and 73 percent of rated power. The malfunction of the FCV position feedback linkage caused thermal reactor power to exceed 100 percent of the licensed limit by three percent, in violation of the licensed maximum power level specified in license condition.

Inspection Report# : <u>2002003</u>(*pdf*)



Significance: May 18, 2002 Identified By: NRC Item Type: NCV NonCited Violation

VIOLATION OF TECHNICAL SPECIFICATION DUE TO DESIGN DEFICIENCY OF OFF GAS GRAB SAMPLE SYSTEM. Technical Specification 3.3.7.10 requires that with the off gas system in service, off gas radiation and hydrogen monitors are required to be operable or grab samples taken. Between April 20 and 21, 2000, grab samples were being taken, but because of inadequate procedures and understanding of the grab sample piping arrangement, non-representative samples were taken. Inspection Report# : 2002003(pdf)

Last modified : March 25, 2003