

Ginna

4Q/2007 Plant Inspection Findings

Initiating Events

Significance:  Mar 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure of “B” MSIV due to Inadequate Design Control

A self-revealing NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” was identified because Ginna failed to control the proper design configuration of installed plant equipment. Specifically, Ginna failed to update records and procedures reflecting the design requirement for a vent hole to be drilled in the exhaust port plug for the main steam isolation valve (MSIV) air actuators. As a result, a replacement actuator was installed during the October 2006 refueling outage on the “B” MSIV with a solid vent plug. This caused an inadvertent closure of the MSIV on March 16, 2007, and resulted in a reactor trip. Ginna replaced the actuator with a modified version and placed this issue in the corrective action program.

The finding is more than minor because it is associated with the design control attribute of the Initiating Events cornerstone, and it adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability during power operations. Specifically, the closure of “B” MSIV caused a reactor trip with a safety injection system actuation. The inspectors determined the finding was of very low safety significance (Green) using a Phase 1 screening of the finding in accordance with IMC 0609, Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The finding screened to Green because it did not contribute to the likelihood of a primary or secondary system loss-of-coolant-accident (LOCA) initiator, or to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available.

Inspection Report# : [2007002](#) (*pdf*)

Mitigating Systems

Significance:  Oct 10, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to correctly calibrate lead and lag timing modules for the OTDT reactor protection trip channels

Inspectors identified a self-revealing NCV of 10 CFR 50 Appendix B, Criterion XVI, “Corrective Action,” Ginna failed to correct a condition adverse to quality associated with the ability of maintenance personnel to correctly calibrate lead and lag timing modules in the OTDT reactor protection trip channel instruments. Specifically, on multiple occasions from October 2006 to September 2007, the lead and lag timing circuits were found to be greater than the requirements in the Core Operating Limits Report, Cycle 33, Revision 0, indicating that Ginna failed to correctly set the lead and lag modules in the OTDT trip channel instruments. Ginna’s corrective actions included conducting an extensive analysis of the circuit for this trip function and associated procedures and revising the procedure to ensure proper calibration of the modules.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone’s objective to ensure the capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a Phase 1 SDP screening and determined the issue to be of very low safety significance (Green). The finding is of very low safety significance because it was not a design or qualification deficiency, it did not represent a loss of safety function, and it was not potentially risk significant due to seismic, flood, fire, or weather-related initiating events. The finding has a cross-cutting aspect in the area of problem identification and resolution because Ginna did not thoroughly evaluate the problem when it initially occurred such that the resolution addressed the causes and extent of conditions. (P.1.c) (Section 1R12)

Inspection Report# : [2007004](#) (pdf)

Significance:  Oct 10, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to correct 'C' SAFW room cooler head gasket leakage

Inspectors identified a self-revealing NCV of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," when service water (SW) leakage from the 'C' Standby Auxiliary Feedwater (SAFW) cooler indicated that Ginna failed to correct a condition adverse to quality associated with SAFW room cooler head installation. Specifically, Ginna failed to correct head gasket installation deficiencies in September 2006 associated with the 'C' SAFW room cooler as evidenced by the recurrence of leakage in June 2007. Ginna did not ensure that correct torque values were applied and material gasket selection was appropriate such that pressure transients within cooler design did not cause SAFW cooler head leakage. Ginna's corrective actions included gasket replacement and issuance of a condition report (CR) to address corrective action issues associated with the events.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone's objective to ensure the capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a Phase 1 SDP screening and determined the issue to be of very low safety significance (Green). The finding is of very low safety significance because it was not a design or qualification deficiency, it did not represent a loss of safety function, and was not potentially risk significant due to seismic, flood, fire, or weather-related initiating event. The finding has a cross-cutting aspect in the area of problem identification and resolution because Ginna did not implement appropriate corrective actions to correct head gasket installation issues in September 2006 (P.1.d.). (Section 1R15)

Inspection Report# : [2007004](#) (pdf)

Significance:  Sep 21, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Evaluation of Residual Heat Removal Pump NPSH for Containment Sump Recirculation Scenarios

The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, in that, Constellation had not provided adequate design control measures to verify the adequacy of Residual Heat Removal (RHR) pump net positive suction head (NPSH) margin for the containment sump recirculation mode of operation. Specifically, under certain loss-of-coolant accident (LOCA) conditions, the team determined that additional RHR pump flowpaths would exist through idle containment spray and safety injection pumps which had not been previously evaluated for in the design basis NPSH analysis of record. Constellation entered the issue into their corrective action program and revised the emergency operating procedures to ensure consistency between the implementing procedure and the design analysis.

The finding was more than minor because the deficient NPSH analysis resulted in a condition where there was reasonable doubt with respect to the operability of the RHR pumps. The finding was associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter (IMC) 0609, Appendix A, Significance Determination of Reactor Inspection Findings for At-Power Situations, the team conducted a Phase 1 SDP screening and determined the finding was of very low safety significance (Green) because it was a design deficiency that did not result in a loss of RHR pump operability. (Section 1R21.2.1.2)

Inspection Report# : [2007006](#) (pdf)

Significance:  Sep 21, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Nonconservative Differential Pressure Value Used In Motor Operated Valves 850A/B Design Analysis

The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. Specifically, the maximum expected differential pressure established as a design input in the containment sump suction valve (MOV 850A/B) thrust margin evaluation, had not been verified to be a conservative value during the recirculation phase of operation for a small break loss-of-coolant accident (SBLOCA). Constellation entered the issue into their corrective action program and performed a detailed engineering evaluation to ensure valve thrust margin remained for SBLOCA scenarios. Additionally, Constellation revised the emergency operating procedures to ensure that potential pressurization of the residual heat removal system is monitored and depressurization performed prior to initial opening of the containment sump suction valves.

The finding was more than minor because the design analysis deficiency resulted in a condition where there was reasonable doubt regarding the operability of the containment sump valves. The finding was associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC IMC 0609, Appendix A, Significance Determination of Reactor Inspection Findings for At-Power Situations, the team conducted a Phase I SDP screening and determined the finding was of very low safety significance (Green) because it was a design deficiency that did not result in a loss of operability.

The finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program. Constellation had not taken appropriate corrective actions to address the adequacy of the design bases maximum expected differential pressure assumption for the containment sump suction valve in previous evaluations of the issue. (Section 1R21.2.1.8) (IMC0305, aspect P.1 (d))

Inspection Report# : [2007006](#) (*pdf*)



Significance: G Sep 21, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Ginna Emergency Operating Procedure not Updated After Extended Power Uprate

The team identified a finding of very low safety significance involving a non-cited violation (NCV) of Technical Specification 5.4.1, Procedures. Specifically, an emergency operating procedure (EOP) figure referenced in loss-of-coolant accident procedures had not been revised, as required, following plant modifications for an extended power uprate (EPU). The EPU analysis increased the minimum injection flow needed to provide decay heat removal during a loss-of-coolant accident. Constellation entered the issue into their corrective action program, revised the affected EOP figure and performed a preliminary extent of condition review of other operating procedures affected by EPU.

The finding was more than minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, if used during a LOCA event response, EOP Figure-6 would have allowed operators to reduce RHR injection flow to a value below that required for minimum decay heat removal. The deficiency was assessed in accordance with NRC (IMC) 0609, Appendix A, Attachment 1, Significance Determination Process (SDP) for Reactor Inspection Findings for At-Power Situations. The team determined this deficiency was of very low safety significance (Green) because it did not represent a loss of system safety function. Operators would have had multiple indications of inadequate decay heat removal, such as core exit thermocouples and reactor vessel level indicating system (RVLIS), and would have had adequate time to respond and increase injection flow.

The finding had a cross-cutting aspect in the area of Human Performance, Work Practices, because Constellation's supervisory and management oversight of contractor work activities on the power uprate project was not adequate to ensure in-progress work was completed. (Section 1R21.2.2.1) (IMC0305, aspect H.4 (c))

Inspection Report# : [2007006](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Significance:  Mar 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

GINNA Communicators Not Adequately Trained To Implement EPIP 5-7

The inspectors identified an NCV of 10 CFR 50.47(b)(15), radiological emergency response training, when they noted that the assigned Emergency Response Organization (ERO) communicators have not been fully trained on all communicator responsibilities as outlined in Emergency Plan Implementing Procedure (EPIP) 5-7. For example, since December 2006, contrary to EPIP 5-7, maintenance personnel who were filling the role of ERO communicator have not been trained to respond to the control room when medical and fire events have occurred at the station and properly implement their communicator duties. Ginna issued a condition report to address the training deficiency.

The inspectors determined that the failure to ensure that control room communicators were fully trained on ERO communicator responsibilities as described in procedure EPIP 5-7 was more than minor because it was associated with the ERO readiness aspect of the Emergency Preparedness cornerstone, and it affected the objective to ensure Ginna is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The EP SDP was used to assess the safety significance of this finding related to the non-risk significant planning standard 10 CFR 50.47(b)(15). Based on IMC 0609 Appendix B, "Emergency Preparedness SDP" Sheet 1 for the failure to comply with an NRC requirement and the examples provided in Section 4.15, this finding was determined to be of very low safety significance (Green). The finding screened to Green, because the individuals were not trained to the expectations outlined in EPIP 5-7; however, they had received training on their communicator duties for declared events. This finding has a cross-cutting aspect in the area of human performance, because Ginna maintenance personnel who were filling the role of ERO communicator were not fully trained on the roles and responsibilities of the position as outlined in EPIP 5-7.

Inspection Report# : [2007002](#) (*pdf*)

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

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