

Ginna

2Q/2011 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Oversight Resulting In Inadvertent Partial Safety Injection Actuation

A self-revealing NCV of technical specification (TS) 5.4.1.a, "Procedures," was identified when Ginna personnel did not correctly perform procedure STP-O-R-2.2, "Diesel Generator Load and Safeguard Sequence Test," Revision 00500 during the refueling outage with the plant in Mode 5. This resulted in a partial safety injection (SI) actuation, including the automatic start of the 'B' emergency diesel generator and an associated service water pump. Ginna's corrective actions included immediately returning all equipment to its pretest position, performing a crew stand down and crew clock reset, ensuring each test had a clearly identified test supervisor, and that each test supervisor re-brief the crew if there was a break in the test, if test results were unexpected, or if any part of the test needed to be re-performed. Additionally, Ginna provided training to operation's personnel and verified that procedure STP-O-R-2.2 was adequate.

This finding is more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Additionally, the inspectors determined that more than minor example 4.b of IMC 0612, Appendix E, was similar because control room operators caused a partial SI actuation. The inspectors determined that this finding was of very low safety significance (Green) using IMC 0609, Appendix G, "Shutdown Operations SDP." Specifically, Ginna maintained adequate mitigation capability for a Pressurized-Water Reactor during cold shutdown operation with the reactor coolant system (RCS) closed and steam generators available for decay heat removal.

This finding has a cross-cutting aspect in the area of human performance, work practices, in that Ginna failed to ensure adequate supervisory and management oversight of the diesel generator load and safeguard sequence test such that nuclear safety was supported. Specifically, operations personnel failed to adequately supervise the diesel generator load and safeguard sequence test, and as a result, an SI partial actuation occurred during testing (H.4(c) of IMC 0310).

Inspection Report# : [2011003](#) (*pdf*)

Mitigating Systems

Significance:  Nov 11, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Evaluation of Breaker Coordination for Ampetector Type LSG Trip Unit Discriminator Feature

The inspectors identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. Specifically, Ginna had not verified the adequacy of their design with respect to the impact of the installed Ampetector type long, short, and ground trip unit discriminator feature on breaker coordination. The discriminator circuit design had not been evaluated to ensure the 480V load center bus motor control center feeder breakers would maintain coordination and be capable of maintaining power to downstream safety-related components in response to design basis events such as seismic or steam line break transients. Ginna entered this into their correction action program to evaluate the adequacy of their design and ensure the feeder

breakers remained operable.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of design control and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of the 480V busses to respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding in accordance with Inspection Manual Chapter 0609, Significance Determination Process, Attachment 0609.04, Phase 1, "Initial Screening and Characterization of Findings", Table 4a, for the Mitigating Systems Cornerstone. The inspectors determined the finding was of very low safety significance because it was a design deficiency confirmed not to result in a loss of operability. The inspectors did not identify a cross-cutting aspect with this finding because this was an old design issue and, therefore, was not reflective of current performance. Inspection Report# : [2010009](#) (*pdf*)

Significance:  Nov 11, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Translation of NPSH Design Limits into EOPs

The inspectors identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. Specifically, Ginna had not correctly translated residual heat removal (RHR) pump net positive suction head (NPSH) operating limits into emergency operating procedures. Emergency operating procedure ES-1.3, "Transfer to Cold Leg Recirculation," included criteria for aligning the discharge of the RHR pump to the suction of the safety injection (SI) pump under post-accident sump recirculation conditions which had not been adequately analyzed for RHR pump NPSH. Ginna entered the issue into their corrective action program to address the inconsistency between the design analysis and procedure and performed a review to ensure the RHR pump remained operable with respect to NPSH margin.

The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of design control and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, design control measures had not ensured consistency between the design analysis assumptions and the operating procedure to ensure adequate RHR pump NPSH margin when aligned to the SI pump during sump recirculation. The inspectors evaluated the finding in accordance with Inspection Manual Chapter 0609, Significance Determination Process, Attachment 0609.04, Phase 1, "Initial Screening and Characterization of Findings, Table 4a, for the Mitigating Systems Cornerstone. The inspectors determined the finding was of very low safety significance because it was a design deficiency confirmed not to result in a loss of operability. The inspectors did not identify a cross-cutting aspect with this finding because it did not represent current performance. The discrepancy between the design analysis and procedure occurred outside of the timeframe which reflects current performance.

Inspection Report# : [2010009](#) (*pdf*)

Significance:  Sep 30, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Adequately Assess the Risk of Technical Support Center Inverter Maintenance

The inspectors identified a very low safety significance (Green) non-cited violation (NCV) of 10 CFR 50.65, "Maintenance Rule," paragraph (a)(4), when Ginna did not perform an accurate risk assessment prior to removing the technical support center (TSC) battery charger and fire system S01, suppression for the auxiliary building basement cable trays, from service, which resulted in an underestimation and lack of awareness of the risk during these maintenance activities. Ginna's corrective actions included immediately updating their risk model to reflect the actual plant configuration. When re-evaluated, the core damage frequency risk, during the maintenance, increased from low to medium.

The finding is more than minor because if the overall risk had been correctly assessed, it would have placed Ginna into a higher risk category. The finding is associated with the configuration control attribute of the Mitigating Systems cornerstone and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors

determined that the finding is of very low safety significance because the incremental core damage probability deficit was less than 1.0E-6. This finding has a cross-cutting aspect in the area of human performance, work control, in that Ginna operators were not fully apprised of the work status of the TSC inverter work and its operational impact (H.3.b per IMC 0310).

Inspection Report# : [2010004](#) (pdf)

Significance:  Sep 30, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Identify Five Pumps in the Inservice Testing Alert Range

A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was determined based on Ginna's failure to identify that vibration data exceeded the inservice testing (IST) acceptance criteria for five pumps. On June 30, 2009, Ginna identified that the 'B' residual heat removal (RHR) pump vibration data had exceeded the required action range for IST criteria for the previous four surveillance tests due to vibration data being incorrectly measured and analyzed. Ginna's apparent cause evaluation documented that an extent of condition review was completed which identified all the additional components that were unknowingly in the IST alert or required action range from May 2008 to June 2009. On August 4, 2010, Ginna tested the 'A' motor-driven auxiliary feedwater pump and determined that it was in the alert range for inboard bearing vibration. During their analysis, Ginna discovered that during the last comprehensive test in October 2008, the same vibration point was in the IST alert range. This had not been identified during Ginna's previous extent of condition review. Subsequently, Ginna performed another extent of condition review and identified that four other components were outside the vibration acceptance criteria and in the alert range. Ginna's immediate corrective actions included entering this issue into their corrective action program (CAP) and verifying that all other IST pumps were within the IST acceptable range.

This finding is more than minor because it was repetitive and it affected a number of pumps. The finding is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and adversely affected the objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined that the finding was of very low safety significance (Green) because it was not a design or qualification deficiency, did not represent a loss of safety function, and did not screen as potentially risk significant due to seismic, flooding, or severe weather. This finding has a cross-cutting aspect in the area of problem identification and resolution, CAP, in that Ginna did not thoroughly evaluate IST program vibration data during their extent of condition review conducted in 2009 as a result of the 'B' RHR pump exceeding the IST required action range (P.1.c per IMC 0310).

Inspection Report# : [2010004](#) (pdf)

Barrier Integrity

Significance:  Jun 30, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Procedure for Fuel Transfer Flange Installation

A self-revealing NCV of TS 5.4.1.a, "Procedures," was identified when Ginna personnel did not correctly establish procedure RF-401, "Fuel Transfer Blind Flange Removal and Installation," Revision 0, by not ensuring that the procedure contained sufficient guidance to ensure that the flange bolts were properly tightened. The bolts were not tightened which resulted in an increase in the containment leakage rate. Ginna's corrective actions included revising the procedure to include torque specifications.

This finding is more than minor because it is associated with the barrier performance attribute of the Barrier Integrity cornerstone and affects the cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, RCS, and containment) protect the public from radionuclide releases caused by accidents or events. The inspectors determined that this finding is of very low safety significance (Green) using IMC 0609, Appendix A,

“Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The finding did not represent a degradation of the radiological barrier function provided for the control room, or auxiliary building, or spent fuel pool; the finding did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere; the finding did not represent an actual open pathway in the physical integrity of reactor containment (valves, airlocks, containment isolation system (logic and instrumentation) and heat removal components; and the finding did not involve an actual reduction in function of hydrogen ignitors in the reactor containment. Specifically, although the finding resulted in an increase in the containment leak rate, it did not represent an actual open pathway in the physical integrity of reactor containment.

This finding had a cross-cutting aspect in the area of human performance, resources, in that the fuel transfer blind flange installation procedure was not complete, accurate and up-to-date. Specifically, the procedure did not contain sufficient installation guidance to ensure that the flange bolts were properly tightened (H.2(c) per IMC 0310).

Inspection Report# : [2011003](#) (*pdf*)

Emergency Preparedness

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

Last modified : October 14, 2011