

# Ginna

## 2Q/2012 Plant Inspection Findings

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### Initiating Events

**Significance:**  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Manage Risk of Reactor Protection System Channel 2 Calibrations**

The inspectors identified a Green non-cited violation of 10 CFR 50.65, "Maintenance Rule," paragraph (a)(4), when Ginna did not adequately manage an increase in risk when initiating the reactor protection system channel 2 calibration procedure which resulted in an underestimation of the risk, and several required risk management tools were not implemented by Ginna operations staff as required. Ginna took immediate corrective actions of stopping work and notifying the shift manager, work week coordinator, and the risk analyst. This finding was entered into Ginna's corrective action program (CR-2011-7071).

This finding is more than minor because the overall elevated plant risk would put the plant into a higher licensee-established risk category and required additional risk management actions per plant procedures. This finding 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. The inspectors determined this 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 did not plan and coordinate work activities consistent with nuclear safety. Specifically, Ginna management was not fully apprised of plant conditions prior to making the actual risk change and before continuing with channel 2 calibration work (H.3 (b) per IMC 0310).

Inspection Report# : [2011005](#) (*pdf*)

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### Mitigating Systems

**Significance:**  Apr 26, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Validate Plant Safe Shutdown Timeline for Design Basis Tornado.**

The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion III, "Design Control," when it was determined that Ginna had not validated that the Safe Shutdown Analysis for a design basis tornado described in Updated Final Safety Analysis Report (UFSAR) Section 3.3.3.2.2 could be completed in a timely fashion. Specifically, although procedures existed and operators were trained on those procedures, Ginna had not validated that the safe shutdown methodology would establish standby auxiliary feedwater (SAFW) to the steam generator (S/G) prior to the S/G boiling dry. As a result, time critical operator actions were not identified and operator training was not sufficient to ensure operators could perform this task in a timely manner. Ginna entered this concern into their CAP as condition report (CR) 2012-002825 and provided operators additional guidance on the new expectations for responding to this event.

The inspectors determined that the finding was more than minor because it was similar to examples 3K and 3L of

IMC 0612, Appendix E, "Examples of Minor Issues." Using IMC 0609 Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding screened as potentially risk significant since normal core cooling could be adversely impacted during a severe weather initiating event. Therefore, the inspectors coordinated with the region Senior Reactor Analysts (SRAs) to conduct a Phase 3 analysis. The SRA Phase 3 determined this finding would screen to very low safety significance (Green) due to core damage frequency (CDF) being E-8 or approximately 1 core damage event in 10,000,000 years of reactor operation. This finding was determined not to be indicative of current licensee performance since the performance deficiency occurred in 1983, thus no cross-cutting aspect is assigned.

Inspection Report# : [2012008](#) (pdf)

**Significance:** G Mar 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Inadequate Corrective Action on Human Performance Issues Results in Two Trains of Auxiliary Feedwater Inoperable**

A self-revealing NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for Ginna's failure to implement adequate compensatory corrective actions associated with a series of human performance issues and valve mispositioning events. The corrective actions were inadequate in that Ginna failed to prevent an improperly tagged closed auxiliary feedwater (AFW) valve which resulted in two trains of AFW inoperable. Corrective actions included compensatory actions which required 100 percent peer checks on all tagout applications, a separate pre-job brief for the independent verification of tagouts, and for a senior reactor operator to observe the independent verification portion of the tagout process. This finding was entered into Ginna's corrective action program (CR-2012-0294).

This finding is more than minor because it is associated with the human performance attribute of the Mitigating Systems cornerstone, and it adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors determined this finding is of very low safety significance because it was not a design or qualification deficiency, did not involve an actual loss of safety function for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event.

This finding has a cross-cutting aspect in the area of problem identification and resolution because Ginna did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner commensurate with their safety significance and complexity. Specifically, Ginna did not implement appropriate compensatory actions to address a weakness in procedure use and adherence by operations personnel [P.1(d)].

Inspection Report# : [2012002](#) (pdf)

**Significance:** G Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Inadequate Maintenance Resulted in the Failure to Properly Tighten Turbine-Driven Auxiliary Feedwater System Threaded Connections**

A self-revealing non-cited violation of technical specification (TS) 5.4.1.a, "Procedures," was identified for Ginna's failure to properly tighten turbine-driven auxiliary feedwater (TDAFW) system threaded connections. Specifically, the performance of procedure MMP-GM011-00012, "AFW Pump Turbine Major Mechanical Inspection and Mechanical Overspeed Trip Testing," Revision 00200, did not ensure that low pressure trip switch mount threaded connections remained tight. Consequently, high turbine outboard bearing vibrations were noted, and the TDAFW system was declared inoperable. Corrective actions included additional testing and inspection to ensure that no bearing damage had occurred, revising applicable portions of the TDAFW system maintenance procedures, and providing additional guidance for mechanical maintenance and planning personnel. This finding was entered into Ginna's corrective action program (CR-2011-8098).

This finding is more than minor because it is similar to Inspection Manual Chapter (IMC) 0612, Appendix E, Example

3.j., regarding a reasonable doubt on the operability of the system. The performance deficiency is associated with the Mitigating Systems cornerstone attribute of equipment performance (reliability, availability) and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors evaluated this finding using Phase 1, "Initial Screening and Characterization" worksheet of Attachment 4 to IMC 0609. The inspectors determined this finding was not a design or qualification deficiency, did not involve an actual loss of safety function for greater than its TS allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. Therefore, the inspectors determined this finding to be of very low safety significance.

This finding has a cross-cutting aspect in the area of human performance, work control, in that Ginna failed to plan and coordinate work activities, consistent with nuclear safety. Specifically, the work planning aspects, including the TDAFW system maintenance procedure, did not incorporate the risk insights associated with skill of the trade to ensure that the threaded connections remained tight [H.3 (a)].

Inspection Report# : [2011005](#) (*pdf*)

**Significance:**  Sep 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Promptly Identify and Correct a Condition Adverse to Quality with the 'B' Main Steam Isolation Valve**

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for Ginna's failure to promptly identify and correct a condition adverse to quality. Specifically, Ginna did not promptly identify and correct a deenergized control power channel for the 'B' main steam isolation valve (MSIV) caused by a loose fuse clip. Corrective actions included forming an incident response team, visually inspecting all fuse clips where the plastic fuse blanks were used since April 2011, identifying potentially loose fuse clips, repairing any loose clips identified, ensuring operators know how to properly use the plastic fuse blanks to prevent fuse clip damage, and requiring electrical maintenance support to verify the integrity of the fuse clip/fuse connection after removal of the plastic fuse blank and reinsertion of the fuse.

This finding is more than minor because the performance deficiency is associated with the Mitigating Systems cornerstone attribute of equipment performance (reliability, availability) and adversely affected the cornerstone objective of ensuring availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors determined this finding was not a design or qualification deficiency, did not involve an actual loss of safety function for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. Therefore, the inspectors determined the finding to be of very low safety significance. The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, corrective action program, because Ginna did not thoroughly evaluate the problem such that the resolution addressed the cause and extent of condition. Specifically, Ginna did not adequately evaluate the loss of position indicating lights on the 'B' MSIV to ensure that the correct cause was identified.

Inspection Report# : [2011004](#) (*pdf*)

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## **Barrier Integrity**

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## Public Radiation Safety

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### Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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### Miscellaneous

Last modified : September 12, 2012