

Ginna

2Q/2008 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Correctly Implement Reactor Coolant Heat-up Procedure

The inspectors identified a self-revealing NCV of Technical Specification 5.4.1.a when control room operators closed the inlet and outlet Residual Heat Removal (RHR) system isolation valves while conducting a plant heat-up with the 'A' reactor coolant system loop inoperable. This was contrary to procedural requirements which require operators to verify that two reactor coolant system loops are operable and at least one is operating prior to isolating the RHR system. Several minutes after isolating the RHR system, the control room operators recognized they were not complying with the procedure, and restored power to the RHR isolation valves. The time that the RHR system was isolated from the reactor coolant system was 15 minutes.

This finding was determined to be of very low safety significance (Green) using Phase 1, Appendix G, Attachment 1, Checklist 4 of IMC 0609. This finding was of very low safety significance because the finding did not increase the likelihood of a loss of RCS inventory, degrade the ability of Ginna to terminate a leak path or add RCS inventory when needed, nor degrade the ability to recover RHR. This finding has a crosscutting aspect in the area of human performance because operators did not adhere to the procedural requirements prior to removing the RHR system from service (H.4.b per IMC 0305).

Inspection Report# : [2008003](#) (*pdf*)

Mitigating Systems

Significance:  Mar 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Did Not Implement Scaffolding Procedure Requirements

The inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Ginna did not adequately implement scaffolding control procedural requirements related to post-installation inspections and engineering safety evaluations for scaffolding constructed within 1 inch of safety-related equipment. During a plant walkdown on March 18, 2008, the inspectors identified multiple examples where scaffolding was not installed in accordance with Constellation Energy corporate and site procedures. For example, contrary to step 3.3.8 of Ginna procedure A-1406.1, "Requirements for the Installation of Scaffolding," scaffolds were installed within 1 inch of safety-related equipment and did not receive an engineering safety evaluation. Similar scaffold-related issues have occurred over 26 times since July 2007, as documented in CR 2008-0292.

This finding is more than minor because it was associated with the Mitigating System cornerstone attributes of protection against external factors such as a seismic event and equipment performance such as reliability. The finding affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding is of very low safety significance, because the finding is not a design or qualification deficiency, did not represent a loss of a safety function, and did not screen as potentially risk significant due to external events. This finding is similar to example 4.a in Appendix E of IMC 0612, in that Ginna had recurring examples of not performing evaluations for scaffolds constructed within the minimum allowed distance of safety related equipment. The finding has a crosscutting aspect in the area of human performance, in that the Ginna did not effectively communicate expectations regarding work practices to workers constructing scaffolding or to supervisors who routinely monitor these activities to follow procedural requirements. (H.1.C per

Inspection Report# : [2008002 \(pdf\)](#)

Significance:  Mar 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Promptly Identify and Correct Out-of-Specification Lubricating Oil Conditions

Inspectors identified an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," when Ginna failed to promptly identify and correct a condition adverse to quality associated with out-of-specification oil samples for the 'A' residual heat removal (RHR) and 'A' safety injection pumps. Specifically, Ginna did not submit the oil samples for analysis for 37 days and when informed of out-of-specification conditions on the 'A' safety injection pump on February 18, 2008, and the issue was not documented or assessed in the Ginna corrective action program until February 25, 2008.

This finding is greater 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 availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, by not promptly assessing the significance of the out-of-specification oil samples, the potential inoperability of the safety injection pump was not evaluated. The inspectors determined that this finding was of very low safety significance (Green), because the finding is not a design or qualification deficiency, did not represent a loss of a safety function, and did not screen as potentially risk significant due to external events. This finding is similar to example 3.k in Appendix E of IMC 0612, in that the oil sample program had programmatic weaknesses that could lead to worse conditions if not corrected. This finding has a cross-cutting aspect in the area of problem identification and resolution because Ginna had not implemented appropriate corrective actions to ensure oil samples that are out-of-specification are promptly assessed. (P.1.a per MC 0305)

Inspection Report# : [2008002 \(pdf\)](#)

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:  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:  Jun 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain Timely ERO Augmentation of On-shift Staff

The inspectors identified an NRC-identified NCV of 10 CFR 50.47(b)(2) for failure of Ginna's process for maintaining timely augmentation of on-shift staff. Ginna's nuclear emergency response plan (NERP) states that the survey team member position will be staffed by six individuals reporting onsite within one hour of the declaration of an ALERT or higher classification. Results from testing the off-hours notification of the response organization for the four quarters, starting in June 2007 through March 2008, indicated that fewer than six individuals would have responded for the survey team member position within one hour of event declaration. Plant management entered the issue into their corrective action program and took appropriate immediate corrective actions following identification of the issue by the inspectors.

This finding is more than minor because it is associated with the emergency response organization (ERO) performance attribute and affected the objective of the Emergency Preparedness cornerstone to ensure timely augmentation of on-shift staff. In accordance with the Emergency Preparedness Significance Determination Process, this finding is of very low safety significance because the failure to comply with 10 CFR 50.47(b)(2) was a planning standard problem, but not a planning standard functional failure. The inspectors determined that this finding has a crosscutting aspect in the area of problem identification and resolution because Ginna did not take appropriate corrective actions to qualify more individuals for the survey team position in 2007 (P.1.d per IMC 0305).

Inspection Report# : [2008003](#) (*pdf*)

Significance: SL-III Feb 22, 2008

Identified By: Licensee

Item Type: VIO Violation

Failure to Obtain NRC Approval for EAL Changes Which Decreased the Effectiveness of the Emergency Plan

10 CFR 50.54(q) requires, in part, that a licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47(b) and the requirements in appendix E of this part. The nuclear power reactor licensee may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to this part. 10 CFR 50.47(b)(4) requires, in part, that the licensee use a standard emergency classification and action level scheme.

Contrary to the above, between 1996 and 2001, the licensee made changes to its emergency plan which decreased its effectiveness without first obtaining Commission approval. Specifically, without first obtaining Commission approval, the licensee revised its emergency classification and action level scheme related to the Emergency Action Levels (EALs) for: (1) Failed Fuel Detectors; (2) Containment Radiation; (3) Primary to Secondary Leakage; (4) Containment Integrity Status for Unusual Events or Alert Levels; (5) Fire or Explosion; and, (6) Containment Integrity Status for the Site Area Emergency Level (CIS-SAE). These six EALs decreased the effectiveness of the emergency plan by non-conservatively limiting the conditions under which the emergency action levels could be declared. For example, the EAL for CIS-SAE was previously approved for any conditions causing a rapid uncontrolled decrease in containment pressure following initial increase, but the licensee changed the EAL for CIS-SAE to be limited to a rapid uncontrolled decrease in containment pressure following initial increase, due to a loss-of-coolant-accident, which excluded certain main steam line break conditions.

Inspection Report# : [2008502](#) (*pdf*)

Occupational Radiation Safety

Significance:  Jun 30, 2008

Identified By: NRC

Item Type: FIN Finding

Failure to Implement Effective Occupational Exposure Control

The inspectors identified a self-revealing finding of very low safety significance associated with occupational

exposure control. During the planned refueling outage, Ginna did not effectively manage its radioactive source term and work activities to prevent unnecessary occupational exposure to workers during 'B' sump strainer modification and steam generator inspections. Specifically, the collective occupational radiation dose received by individuals for these two activities exceeded the planned or intended dose that Ginna determined was as low as is reasonably achievable (ALARA) for the work activities.

This finding is more than minor because each of the two work activities exceeded their initial estimates by more than 50 percent and each accumulated more than five person-rem, as described in Appendix E of IMC 0612, example (6.b). Additionally, the finding affected the program and process attribute of the Occupational Radiation Safety cornerstone to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operations. This finding is of very low safety significance because the 3-year rolling average exposure for Ginna was less than 135 person-rem. This finding has a crosscutting aspect in the area of human performance work control because Ginna did not effectively coordinate work activities to incorporate actions to address the impact of changes to the work scope or activity that were appropriate under the circumstances (H.3.b per IMC 0305).

Inspection Report# : [2008003](#) (*pdf*)

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

Significance: N/A Feb 22, 2008

Identified By: NRC

Item Type: FIN Finding

95002 NRC Supplemental Inspection

The NRC performed this supplemental inspection to assess Constellation's evaluation associated with the performance indicator (PI) for Emergency Response Organization (ERO) drill participation which crossed the Yellow threshold in the first quarter of 2007 when control room communicators did not receive the required drill or exercise opportunity after qualification.

The inspectors determined that Constellation identified the broad organizational issues that led to the Yellow PI, appropriately identified root and contributing causes of the issues, and had taken or planned actions to address the identified causes and prevent recurrence of the issues. However, the inspectors determined that Constellation was slow to recognize the extent of the organizational issues with the EP organization and ERO. Compensatory actions were taken, but implementation of broader corrective actions was delayed as a result of the time taken to complete the root cause evaluation.

The inspectors determined that Constellation's extent of condition and extent of cause evaluations identified potential areas where similar problems might exist, but did not systematically determine whether similar conditions actually existed or whether similar causes had actually impacted other plant programs and processes. Additionally, Constellation did not clearly ensure that actions were in place or planned to specifically address any similar organizational issues outside of the EP and ERO programs. Although Constellation did not systematically evaluate the extent of organizational weaknesses, the NRC independent extent of condition and cause review did not identify any

significant performance issues or plant impact that Constellation had not already recognized. The inspectors confirmed that the organizational issues that extended beyond the EP and ERO programs were being addressed through existing corrective action and improvement plans.

Based on the actions taken and planned to address the EP program issues and broader organizational issues, the inspectors determined that agency follow-up beyond the baseline inspection program was not warranted.

Inspection Report# : [2008502](#) (*pdf*)

Last modified : August 29, 2008