Ginna
3Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2013
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Guidance for Workers to Implement a Modification to the Main Generator Digital Protection Relays
A self-revealing Green finding was identified for inadequate guidance as required by Constellation Energy Nuclear Group, LLC (CENG) procedure CNG-PR-1.01-1005, "Control of Constellation Nuclear Generation Technical Procedure Format and Content," Revision 00500, for workers to implement a modification to the main generator protection digital relays. During the 2012 refueling outage (RFO), the protection relays' outputs were incorrectly configured to trip due to inadequate guidance given to the workers. This resulted in a main generator trip signal that led to a main turbine trip and a subsequent reactor trip during positive reactive capability testing on July 24, 2013.

This finding is more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and adversely impacted 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. Specifically, Ginna procedures PRI-06-02-KVRELAY and PRI-26-02-GEN, which were used to perform the maintenance and modification on the generator protective relays during the 2012 RFO, were not sufficient to ensure the relays were set correctly prior to the system being placed in service. This resulted in a plant trip when the set points for the incorrectly set generator trip relays were achieved during generator voltage testing. The inspectors evaluated the finding using Inspection Manual Chapter (IMC) Attachment 0609.04, "Initial Characterization of Findings," issued June 19, 2012. This attachment directed the inspectors to evaluate the finding using IMC 0609, Appendix A, "Significance Determination Process for Findings At-Power," issued June 19, 2012. The inspectors determined this finding did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g. loss of condenser, loss of feedwater). Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Work Control, because CENG personnel did not appropriately coordinate work activities by incorporating actions to address the impact of changes to the work scope or activity on the plant and human performance. Specifically, CENG personnel did not follow defined processes, such as the scope change process, to address the impact of changes to the work scope when implementing procedure changes to a modification to configure main generator digital protection relays [H.3.(b)].

Inspection Report# : 2013004 *(pdf)*

Significance: G Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identifiy, Account For, and Properly Evaluate Non-Fire Retardant Treated Combustibles in the Screen House
The inspectors identified an non-cited violation of Ginna Operating License Condition 2.C.(3), "Fire Protection," for failure to implement and maintain in effect all fire protection features described in licensee submittals referenced in

and as approved or modified by the NRC's Safety Evaluation Report, dated February 1979 and subsequent supplements. Specifically, CENG did not identify, account for, or evaluate 250 pounds of non-fire retardant treated plywood that has likely been installed in the screen house building (fire zone SH-2) since original construction and 434 pounds of other combustible material in the screen house. Immediate corrective actions included entering this issue into the corrective action program (CR-2013-001507 and CR-2013-001714). Additional planned corrective actions include revising the combustible loading analysis and replacing the installed plywood with a non-combustible material.

The inspectors determined that the failure to treat all wood with fire retardant and maintain its combustible loading analysis accurate and up-to-date was more than minor, because it was associated with the protection against external factors 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. Specifically, CENG did not identify non-fire retardant treated wood and accurately account for the amount of combustibles present in the screen house and was required to recalculate the area's combustible loading to assure the assumptions made in CENG's exemption request from the technical requirements of Section III.G.3 of Title 10 of the Code of Federal Regulations 50, Appendix R, were still met. Additionally, this issue is similar to example 3I described in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues." The inspectors evaluated the finding using IMC Attachment 0609.04, "Initial Characterization of Findings," and IMC 0609 Appendix F, "Fire Protection Significance Determination Process," because the finding involved a failure to adequately implement fire prevention and administrative controls. A low degradation rating was assigned to this finding because the combustible loading of the screen house remained within its current 'LOW' range, and the fire protection program element was expected to display nearly the same level of effectiveness as it would have without the degradation. Therefore, the inspectors determined this finding is of very low safety significance (Green). In accordance with IMC 0612, this finding does not have a cross-cutting aspect because the performance deficiency likely occurred during original plant construction and is not reflective of present plant performance.

Inspection Report# : 2013002 *(pdf)*

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: FIN Finding
Incorrect Oil Filter Gasket Installed in the 'B' Main Feedwater Pump Canister Cover
A self-revealing Green finding was identified for Ginna personnel not following Constellation procedure CNG-MN-4.01-GL004, "Work Package Writer's Guideline," Revision 00000, for planning a maintenance activity. Specifically, during the refueling outage, the work package for maintenance on the 'B' main feedwater pump did not identify the correct gasket for the lube oil filter canister; therefore, an incorrect gasket was installed. In addition, maintenance personnel missed an opportunity to prevent the installation of the incorrect gasket when they proceeded after recognizing that the work package was not specific on the gasket required. The gasket failed after being in service for approximately 10 days resulting in a significant oil leak and causing operators to rapidly reduce plant power to 47 percent to remove the pump from service and avoid a plant trip. Immediate corrective actions included replacing the gasket with the correct one and entering this issue into the corrective action program as CR-2012-8912.

This finding is more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and adversely impacted 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 finding is similar to Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," example 4.b in that a personnel error caused a transient. Using IMC 0609, Appendix A, the inspectors determined this finding did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance,

Work Practices, because Ginna personnel proceeded in the face of uncertainty or unexpected circumstances and installed a gasket without confirming it was the correct part [H.4.(a)].

Inspection Report# : 2012005 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement Scaffolding Procedure Requirements
The inspectors identified a Green non-cited violation of Title 10 of the Code of Federal Regulations 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Constellation Energy Nuclear Group, LLC (CENG) personnel did not accomplish activities affecting quality in accordance with documented procedures. Specifically, CENG personnel did not adequately implement scaffolding control procedural requirements to ensure that scaffolding did not block or restrict full operation of surrounding equipment or maintain 1-inch minimum clearances for safety-related equipment, which resulted in 13 deficiencies associated with scaffolding erection in the last year. CENG staff implemented immediate corrective actions by adjusting the scaffolding, removing the scaffolding, and/or evaluating the scaffolding. Additionally, these issues were documented in CENG's corrective action program.

The finding was more than minor because it was associated with the external factors and equipment performance attributes of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, CENG personnel did not follow procedural guidance when erecting scaffolding on 13 occasions during a 1-year period which resulted in a fire protection suppression system being declared non-functional and the potential to affect other safety-related and fire protection equipment. Additionally, this issue is similar to example 4a described in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," which states that this type of issue is not minor if a licensee routinely fails on similar issues. The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, "Initial Characterization of Findings," issued June 19, 2012. The attachment instructs the inspectors to utilize IMC 0609, Appendix F, "Fire Protection Significance Determination Process," issued February 28, 2005, when the finding involves fixed fire protection systems; the most significant scaffolding issue impacted the S14 fixed fire protection system which was declared non-functional. A low degradation rating was assigned to this finding because the S14 system was determined to be functional after a detailed analysis was performed, and S14 was still expected to display nearly the same level of effectiveness and reliability as it would have had the degradation not been present. Therefore, the inspectors determined the finding was of very low safety significance (Green). The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because CENG personnel did not thoroughly evaluate problems such that the resolutions addressed causes. Specifically, CENG personnel had multiple opportunities following the inspectors' identification of scaffolding issues on October 25, 2012, and prior to August 15 and September 10, 2013, to thoroughly evaluate recent scaffolding problems such that the resolutions addressed causes [P.1(c)].

Inspection Report# : 2013004 *(pdf)*

Significance: G Aug 22, 2013
Identified By: NRC
Item Type: NCV NonCited Violation

Required Voltage and Timing Criteria for Load Tap Changer Controls and Motor
A NRC identified finding of very low safety significance involving a non-cited violation of Title 10 of the Code of Federal Regulations Part 50, Appendix B, Criterion III, "Design Control," in that Constellation Energy Nuclear Group, LLC (CENG) did not ensure the automatic load tap changer (LTC) controls and motor for the #7 transformer and the circuit 767 voltage regulator associated with the #6 transformer had adequate voltage to operate during design basis events. Specifically, LTC operation is credited to restore vital bus voltage during design basis events under minimum grid voltage conditions. Additionally, appropriate acceptance criteria had not been translated into periodic LTC timing tests to ensure design assumptions were being maintained. Failure of the automatic LTC controls and motor to operate, as credited, due to inadequate voltage or timing would result in the 480V safeguard buses disconnecting from one of its credited sources of power. CENG entered the issue into their corrective action program, performed preliminary voltage calculations, and tested a spare LTC motor at voltage levels below the vendor minimum voltage ratings to ensure the offsite power source would remain operable to the safeguard buses.

The finding was more than minor because it was similar to example 3.j of Inspection Manual Chapter 0612, Appendix E, and was associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the finding was of very low safety significance because the issue was a design deficiency that did not result in the loss of preferred source of power to the 480V safeguard buses. This finding had a cross-cutting aspect in the area of problem identification and resolution, Operating Experience, because in 2011 Ginna had previously recognized operating experience information noting that the station may be vulnerable to the issue of evaluating LTC control voltage. However, CENG had not implemented this operating experience into their station processes to ensure they had correctly analyzed the issue. (P.2(b))
Inspection Report# : 2013007 *(pdf)*

Significance: G Jun 30, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Establish Measures to Assure that a Misaligned Service Water Pump was Promptly Identified and Corrected
A self-revealing non-cited violation of Title 10 of the Code of Federal Regulations (10 CFR) 50 Appendix B, Criterion XVI, “Corrective Action,” was identified for Constellation Energy Nuclear Group (CENG) failing to establish measures to assure that a condition adverse to quality associated with the ‘B’ service water pump (SWP) was promptly identified and corrected. Specifically, during installation, CENG did not identify that the ‘B’ SWP sole plate for the discharge head was unlevel and not flat. This resulted in a misaligned pump shaft, and subsequently, on April 5, 2013, the ‘B’ SWP shaft failed while in service.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely impacted the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Due to the misalignment, the SWP failed while in service. The inspectors evaluated the finding using Inspection Manual Chapter (IMC) 0609, Attachment 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix A, “Significance Determination Process for Findings At-Power,” Exhibit 2, "Mitigating Systems Screening Questions." The inspectors determined this finding was not a deficiency affecting the design or qualification of a mitigating structure, system, and component; did not represent a loss of system and/or function; and did not represent an actual loss of function of at least a single train. Therefore, the inspectors determined the finding to be of very low safety significance (Green). The inspectors determined that this finding has a cross-cutting aspect in the area of Human Performance, Resources, because CENG did not have complete, accurate, and up-to-date procedures and work packages. Specifically, CENG’s pump installation procedure did not contain sufficient guidance to ensure adequate pump reassembly [H.2.(c)].

Inspection Report# : 2013003 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Evaluate Changes to the Relay Room Halon Suppression System Inspection and Testing Frequency
The inspectors identified a Green non-cited violation of Ginna Operating License Condition 2.C.(3), "Fire Protection," for failure to adequately evaluate changes to the approved fire protection program that could adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. Specifically, Ginna changed the relay room halon suppression system (S08) inspection and testing frequency from semiannually to biennially and did not appropriately evaluate the change nor properly monitor conditions between testing. As a result, one of the relay room halon system storage cylinders was found below the minimum acceptable pressure. Immediate corrective actions included entering this issue into the corrective action program as CR-2012-7267, declaring the S08 system non-functional, and establishing a continuous fire watch within 1 hour.

This finding is more than minor because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the S08 system was last tested on October 13, 2011, and could have degraded to the point where it could not maintain minimum required halon concentration before it would have been retested and thoroughly inspected in October 2013. Using Inspection Manual Chapter 0609 Appendix F, a low degradation rating was assigned to this finding because the S08 system was determined to be functional and was expected to display nearly the same level of effectiveness and reliability as it would have had the degradation not been present. Therefore, the inspectors determined the finding to be of very low safety significance (Green). The finding does not have a cross-cutting aspect because the performance deficiency is not reflective of present plant performance.

Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Measures to Assure that Water in the 'B' Emergency Diesel Generator Underground Fuel Storage Tank was Promptly Identified and Corrected
The inspectors identified a Green non-cited violation of Title 10 of the Code of Federal Regulations (CFR) Part 50 Appendix B, Criterion XVI, "Corrective Action," for Ginna's failure to establish measures to assure that conditions adverse to quality are promptly identified and corrected. Specifically, Ginna did not establish measures to promptly identify and correct accumulated water in the 'B' emergency diesel generator (EDG) underground fuel oil storage tank. Subsequently, on November 8, 2012, Ginna identified 1.75 inches of water in the 'B' EDG underground fuel oil storage tank and declared the EDG inoperable. Immediate corrective actions included entering this issue into the corrective action program as CR-2012-7792 and CR-2012-8407, and immediately pumping out, collecting and assessing the amount of water identified in the 'B' EDG underground fuel storage tank.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely impacted the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, the finding is similar to Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," example 3.j., issued August 11, 2009, in that the water identified in the 'B' EDG underground fuel oil storage tank created a reasonable doubt of operability of the 'B' EDG, because the level of water exceeded the operability limit specified in the monitoring plan. Using IMC 0609, Appendix G, Attachment 1, Checklist 4, the inspectors determined this finding did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not degrade Ginna's ability to terminate a leak path or add RCS inventory when needed, and did not degrade Ginna's ability to recover decay heat

removal once it is lost. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of
Problem Identification and Resolution, Corrective Action Program, because Ginna personnel did not thoroughly evaluate problems such that the resolutions addressed causes and extent of conditions [P.1.(c)]

Inspection Report# : 2012005 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Meet a Conduct of Operations Standard Results in Loss of Spent Fuel Pool Cooling
A self-revealing Green finding was identified for Ginna personnel not following Constellation procedure CNG-OP-1.01-1000, “Conduct of Operations,” Revision 00700, which requires operators to understand conditions prior to starting equipment. Specifically, Ginna operators inappropriately started the ‘B’ spent fuel pool (SFP) cooling pump with the SFP low level alarm lit, SFP level decreasing, and the level very close to the pump trip set point. Consequently, 3 hours after being started, the ‘B’ pump unexpectedly tripped on SFP low level resulting in a loss of SFP cooling. Immediate corrective actions included entering this issue into the corrective action program as CR-2012-7843, starting the 'A' SFP cooling pump to restore SFP cooling, and adding water to the SFP.

This finding is more than minor because it is associated with the human performance attribute of the Barrier Integrity cornerstone and adversely impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Using Inspection Manual Chapter 0609, Appendix G, Attachment 1, Checklist 4, the inspectors determined this finding did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, did not degrade Ginna’s ability to terminate a leak path or add RCS inventory when needed, and did not degrade Ginna’s ability to recover decay heat removal once it is lost. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Resources, because Ginna did not ensure that resources were available to assure nuclear safety, specifically those necessary for adequate and available facilities and equipment including physical improvements [H.2.(d)].
Inspection Report# : 2012005 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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.

Miscellaneous

Last modified : December 03, 2013