UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

April 11, 2014

Mr. Joseph E. Pacher
Site Vice President
R.E. Ginna Nuclear Power Plant, LLC
Exelon Generation Company, LLC
1503 Lake Rd.
Ontario, NY 14519

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT, LLC – NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000244/2014008

Dear Mr. Pacher:

On March 13, 2014, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your R.E. Ginna Nuclear Power Plant, LLC (Ginna). The enclosed report documents the inspection results, which were discussed on March 13, 2014, with Mike Philippon, General Plant Manager, and other members of your staff.

This inspection examined activities conducted under your license as they relate to identification and resolution of problems and compliance with the Commission's rules and regulations and conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. On April 1, 2014, the operating license for Ginna held by the Constellation Energy Nuclear Group, LLC (CENG) was transferred to Exelon Generation Company, LLC.

Based on the samples selected for review, the inspectors concluded that CENG was generally effective in identifying, evaluating, and resolving problems. CENG personnel identified problems and entered them into the corrective action program at a low threshold. CENG prioritized and evaluated issues commensurate with the safety significance of the problems and corrective actions were generally implemented in a timely manner.

This report documents one NRC-identified finding of very low safety significance (Green). If you disagree with the finding or the assigned cross-cutting aspect, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I; and the NRC resident inspector at Ginna.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the

Publicly Available Records component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Daniel L. Schroeder, Chief
Reactor Projects Branch 1
Division of Reactor Projects

Docket No. 50-244
License No. DPR-18

Enclosure: Inspection Report 05000244/2014008
w/Attachment: Supplementary Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.	50-244
License No.	DPR-18
Report No.	05000244/2014008
Licensee:	Constellation Energy Nuclear Group, LLC (CENG)
Facility:	R.E. Ginna Nuclear Power Plant, LLC
Location:	Ontario, NY
Dates:	February 24, 2014 through March 13, 2014
Team Leader:	Steve Shaffer, Senior Project Engineer
Inspectors:	Doug Dodson, Resident Inspector, Ginna Brian Haagensen, Resident Inspector, Millstone Andrey Turilin, Project Engineer
Approved by:	Daniel L. Schroeder, Chief Reactor Projects Branch 1 Division of Reactor Projects

SUMMARY

IR 05000244/2014008; 02/24/2014 – 03/13/2014; R.E. Ginna Nuclear Power Plant, LLC (Ginna); Biennial Baseline Inspection of Problem Identification and Resolution. The inspectors identified one finding in the area of effectiveness of corrective actions.

This NRC team inspection was performed by two regional inspectors and two resident inspectors. The inspectors identified one finding of very low safety significance (Green) during this inspection. The significance of most findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated June 2, 2011. Cross-cutting aspects are determined using IMC 0310, "Aspects with Cross-Cutting Areas," dated January 1, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated July 9, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4.

Problem Identification and Resolution

The inspectors concluded that CENG was generally effective in identifying, evaluating, and resolving problems. CENG personnel identified problems, entered them into the corrective action program at a low threshold, and prioritized issues commensurate with their safety significance. In most cases, CENG appropriately screened issues for operability and reportability, and performed causal analyses that appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors also determined that CENG typically implemented corrective actions (CAs) to address the problems identified in the corrective action program in a timely manner.

The inspectors concluded that, in general, CENG adequately identified, reviewed, and applied relevant industry operating experience to Ginna operations. In addition, based on those items selected for review, the inspectors determined that CENG's self-assessments and audits were thorough.

Based on the interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual corrective action program and employee concerns program issues, the inspectors did not identify any indications that site personnel were unwilling to raise safety issues nor did they identify any conditions that could have had a negative impact on the site's safety conscious work environment.

Cornerstone: Initiating Events

- Green. The inspectors identified a Green finding (FIN) for CENG's failure to effectively implement a CA associated with an apparent cause evaluation (ACE) that addressed both heater drain tank (HDT) pumps tripping on October 21, 2012. Specifically, CENG failed to effectively implement a CA to modify all procedures in which the feedwater system would be impacted by stopping HDT or condensate booster pumps, which resulted in both HDT pumps tripping and an unplanned power reduction from approximately 79 percent power to approximately 48 percent power on January 14, 2014. These issues were entered into CENG's corrective action program as condition report (CR)-2014-000197 and CR-2014-001208.

This finding is more than minor because it is associated with the equipment performance attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure to effectively implement CA-2012-003493 and modify all procedures impacted by stopping HDT or condensate booster pumps, including procedure AP-FW.1, resulted in both HDT pumps tripping and an unplanned power reduction of approximately 31 percent power. Additionally, this issue is similar to Example 4b described in IMC 0612, Appendix E, "Examples of Minor Issues," issued August 11, 2009, which states that issues are not minor if procedural issues cause a reactor trip or other transient. Using Exhibit 1, "Initiating Events Screening Questions," of IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, the inspectors determined this finding did not involve the complete or partial loss of a support system that contributes to the likelihood of, or causes, an initiating event and affects mitigation equipment and is therefore of very low safety significance (Green). This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because individuals did not follow processes, procedures, and work instructions. Specifically, CENG staff did not follow procedure CNG-CA-1.01-1005 and ensure that CAs (CA-2012-003494) were effectively implemented and addressed identified causes associated with the ACE for CR-2012-007133. [H.8] (Section 4OA2.1.c)

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (71152B)

This inspection constitutes one biennial sample of problem identification and resolution as defined by Inspection Procedure 71152. All documents reviewed during this inspection are listed in the Attachment to this report.

.1 Assessment of Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the procedures that described CENG's corrective action program at Ginna. To assess the effectiveness of the corrective action program, the inspectors reviewed performance in three primary areas: problem identification, prioritization and evaluation of issues, and corrective action implementation. The inspectors compared performance in these areas to the requirements and standards contained in Title 10 of the *Code of Federal Regulations* (10 CFR) 50, Appendix B, Criterion XVI, "Corrective Action," and CENG CNG-CA-1.01-1000, "Corrective Action Program," Revision 01000. For each of these areas, the inspectors considered risk insights from the station's risk analysis and reviewed CRs selected across the seven cornerstones of safety in the NRC's Reactor Oversight Process. Additionally, the inspectors attended multiple Plan-of-the-Day, Condition Report Review Committee, and Management Review Committee meetings. The inspectors selected items from the following functional areas for review: engineering, operations, maintenance, emergency preparedness, radiation protection, chemistry, physical security, and oversight programs.

(1) Effectiveness of Problem Identification

In addition to the items described above, the inspectors reviewed system health reports, a sample of completed corrective and preventative maintenance work orders, completed surveillance test procedures, operator logs, and periodic trend reports. The inspectors also completed field walkdowns of various systems on site, such as the emergency diesel generators and auxiliary feedwater systems. Additionally, the inspectors reviewed a sample of CRs written to document issues identified through internal self-assessments, audits, emergency preparedness drills, and the operating experience program. The inspectors completed this review to verify that CENG entered conditions adverse to quality into their corrective action program as appropriate.

(2) Effectiveness of Prioritization and Evaluation of Issues

The inspectors reviewed the evaluation and prioritization of a sample of CRs issued since the last NRC biennial Problem Identification and Resolution inspection completed in February 2012. The inspectors also reviewed CRs that were assigned lower levels of significance that did not include formal cause evaluations to ensure that they were properly classified. The inspectors' review included the appropriateness of the assigned significance, the scope and depth of the causal analysis, and the timeliness of resolution. The inspectors assessed whether the evaluations identified likely causes for the issues and developed appropriate corrective actions to address the identified

causes. Further, the inspectors reviewed equipment operability determinations, reportability assessments, and extent-of-condition reviews for selected problems to verify these processes adequately addressed equipment operability, reporting of issues to the NRC, and the extent of the issues.

(3) Effectiveness of Corrective Actions

The inspectors reviewed CENG's completed CAs through documentation review and, in some cases, field walkdowns to determine whether the actions addressed the identified causes of the problems. The inspectors also reviewed CRs for adverse trends and repetitive problems to determine whether CAs were effective in addressing the broader issues. The inspectors reviewed CENG's timeliness in implementing CAs and effectiveness in precluding recurrence for significant conditions adverse to quality. The inspectors also reviewed a sample of CRs associated with selected non-cited violations and findings to verify that CENG personnel properly evaluated and resolved these issues. In addition, the inspectors expanded the CA review to five years to evaluate CENG actions related to the heater drain system.

b. Assessment

(1) Effectiveness of Problem Identification

Based on the selected samples, plant walkdowns, and interviews of site personnel in multiple functional areas, the inspectors determined that CENG identified problems and entered them into the corrective action program at a low threshold. CENG staff at Ginna initiated approximately 16,000 CRs between February 2012 and February 2014. The inspectors observed supervisors at the Plan-of-the-Day, Condition Report Review Committee, and Management Review Committee meetings appropriately questioning and challenging CRs to ensure clarification of the issues. Based on the samples reviewed, the inspectors determined that CENG trended equipment and programmatic issues, and appropriately identified problems in CRs. The inspectors verified that conditions adverse to quality identified through this review were entered into the corrective action program as appropriate. Additionally, inspectors concluded that personnel were identifying trends at low levels. In general, inspectors did not identify issues or concerns that had not been appropriately entered into the corrective action program for evaluation and resolution. In response to several questions and minor equipment observations identified by the inspectors during plant walkdowns, CENG personnel promptly initiated CRs and/or took immediate action to address the issues.

(2) Effectiveness of Prioritization and Evaluation of Issues

The inspectors determined that, in general, CENG appropriately prioritized and evaluated issues commensurate with the safety significance of the identified problem. CENG screened CRs for operability and reportability, categorized the CRs by significance, and assigned actions to the appropriate department for evaluation and resolution. The CR screening process considered human performance issues, radiological safety concerns, repetitiveness, adverse trends, and potential impact on the safety conscious work environment.

Based on the sample of CRs reviewed, the inspectors noted that the guidance provided by CENG's corrective action program implementing procedures appeared sufficient to ensure consistency in categorization of issues. Operability and reportability determinations were generally performed when conditions warranted and in most cases, the evaluations supported the conclusion. Causal analyses appropriately considered the extent of condition or problem, generic issues, and previous occurrences of the issue.

(3) Effectiveness of Corrective Actions

The inspectors concluded that corrective actions for identified deficiencies were generally timely and adequately implemented. For significant conditions adverse to quality, CENG identified actions to prevent recurrence. The inspectors concluded that corrective actions to address the inspection sample of NRC non-cited violations and findings since the last problem identification and resolution inspection were timely and effective. However, the inspectors did identify some instances where CENG's evaluation of issues was inconsistently implemented. Specifically, the inspectors identified some instances of CENG failing to meet the procedural requirements of CNG-CA-1.01-1000, "Corrective Action Program," Revision 01000, and CNG-CA-1.01-1005, "Apparent Cause Evaluation," Revision 00603. Specifically, the following instances were identified by inspectors as inadequate evaluation of issues:

- The extent of condition review was not adequately performed for category three CR-2013-001099, which documented that the as left calibration values for the reactor vessel level instrumentation system train 'A' function generator could be left outside of the total instrument uncertainty (TIU) of 0.96 percent, because CPI-INSTR-15.1, "Calibration of Reactor Vessel Level Monitoring System Train A Instrumentation", Revision 01300, had a calibration tolerance of 1 percent. Consequently, the module could meet the procedure tolerance but be left outside the TIU and be non-functional for up to 18 months. The extent of condition review failed to recognize that the 'B' train calibration procedure CPI-INSTR-18.1, "Calibration of Reactor Vessel Level Monitoring System Train B Instrumentation," Revision 01401, allowed for the same inadequate condition. CENG entered the issue into the corrective action program as CR-2014-000975.

- The extent of condition review within the ACE associated with CR-2010-006323, a category two CR, was not adequately performed. The evaluation associated with CR-2010-0006323 documents that there was high resistance on the contacts of charging pump selector switch L/428A that resulted in an increase in charging pump speed and pressurizer level until operators took manual control. In April 2013, pressurizer pressure selector switch P/429A malfunctioned during reactor protection system channel 3 calibrations due to oxidation on the switch contacts. This produced an unanticipated low output to pressurizer pressure controller PC-431K when operators placed the pressure control system back to automatic control after channel 3 calibrations were complete. The low output from the selector switch resulted in a low pressure signal that caused the proportional and backup heaters to be fully energized and closure of the spray valves, and pressurizer pressure unexpectedly rose from 2228 psig to 2245 psig in one minute until the system was

taken to manual control. The extent of condition review associated with CR-2010-006323 failed to recognize that L/428A and P/429A were components with similar make and model. CENG entered the issue into the corrective action program as CR-2014-001289.

The inspectors independently evaluated the deficiencies noted above for significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Issues." The inspectors determined these conditions were deficiencies of minor significance, and therefore, are not subject to enforcement action in accordance with the NRC's Enforcement Policy. While the inspectors concluded that the extent of condition evaluations for the above category two and category three CRs were not adequately performed, interviews conducted by the inspectors and reviews of CRs documented as a result of inspector questions revealed sufficient information to determine the above issues were resolved adequately by CENG staff. CENG documented these issues in CR-2014-000975 and CR-2014-001289.

Additionally, the inspectors identified one example of more than minor significance where CENG personnel were not effective in evaluating and implementing effective corrective actions. The finding is documented below.

c. Findings

Failure to Effectively Implement Corrective Actions Associated with Heater Drain Tank Pump Tripping Issues

Introduction. The inspectors identified a Green finding (FIN) for CENG's failure to effectively implement a CA associated with an ACE that addressed both HDT pumps tripping on October 21, 2012. Specifically, CENG failed to effectively implement a CA to modify all procedures in which the feedwater system would be impacted by stopping HDT or condensate booster pumps, which resulted in both HDT pumps tripping and an unplanned power reduction from approximately 79 percent power to approximately 48 percent power on January 14, 2014.

Description. On October 21, 2012, while reducing power for the 2012 refueling outage, the 'A' and 'B' HDT pumps tripped off approximately one minute after the second condensate booster pump was secured. This resulted in an unplanned power reduction to approximately 48 percent in accordance with AP-FW.1, "Abnormal MFW Pump Flow or NPSH," Revision 1801, using AP-TURB.5, "Rapid Load Reduction," Revision 1501. The ACE for this issue determined that engineering change package (ECP)-2009-0262, "Condensate System Pressure Rerate," Revision 0000, was implemented without a complete understanding of the effect of increased main feedwater (MFW) pump suction pressure on HDT control system dynamic response. This issue was documented by CENG in CR-2012-007133.

On January 13, 2014, while the plant was at 100 percent power, a low pressure condition in the condensate system tripped both running condensate booster pumps and caused air operated valve (AOV)-3959, the condensate low pressure heater bypass valve, to open. This combination caused feed pump suction pressure to increase, and HDT level went high because of the slow response of AOV-3345, the level control valve. Using AP-FW.1 and AP-TURB.5, the plant was stabilized at approximately 79 percent power. This issue was documented by CENG as CR-2014-000196.

On January 14, 2014, at 00:17, the plant was stable at approximately 79 percent power, and operators were in AP-FW.1 to return the condensate system lineup to normal for plant recovery. Operators were directed by the procedure to close AOV-3959 and place the valve control switch in AUTO. This procedure step puts all condensate flow through the low pressure heaters, returns AOV-3959 to normal position, and causes an approximate 60 psig drop in MFW pump suction pressure. This drop causes the backpressure to decrease for the HDT pumps, which results in HDT pump discharge header flow immediately increasing even though HDT level is dropping slowly due to the slow response of AOV-3345. Input flows into the HDT did not change, because the reactor was stable, so the increase of HDT pump flow reduced the water mass in the HDT. At 00:18, HDT pressure increased above saturation pressure and swelling effects stopped. This resulted in HDT level dropping rapidly, which caused both HDT pumps to trip. Subsequently, operators used AP-TURB.5 to reduce power to approximately 48 percent in accordance with AP-FW.1. CENG's ACE determined that the apparent cause of the HDT pumps tripping was "Inadequate procedure direction exists for all applicable procedures to preclude low level in the HDT and minimize the sudden large reduction in MFW pump suction pressure after shutting AOV-3959. This includes optimum settings for AOV-3345 gain and trim valve settings and initial HDT level." This issue and its corresponding ACE were documented by CENG in CR-2014-000197.

One of the CAs associated with the trip of the HDT pumps on October 21, 2012, CA-2012-003494, stated, "Modify all procedures that were affected by ECP-2009-0262 and complete procedure change requests for any that are required to prevent issues when stopping HDT and condensate booster pumps. Focus on AP-TURB.5 and O-5.1." CA-2012-003494 was closed on April 23, 2013, and documented that AP-TURB.5, AP-SG.1, AP-CVCS.3, O-5.1, and O-2.1 were updated. Although CA-2012-003494 references the modification of all relevant procedures, AP-FW.1 was not revised. The ACE for CR-2014-000197 recognized that CA-2012-003494 was written to modify all applicable procedures and identified that no analysis was conducted in the CR-2012-007133 ACE about destabilizing effects on HDT level control in other abnormal procedures like AP-FW.1. However, the CR-2014-000197 ACE did not determine that CA-2012-003494 was ineffectively implemented or recognize ineffective implementation of CA-2012-003494 as an apparent or contributing cause; these facts are evidenced by the ACE's failure to identify any CAs to address the ineffectively implemented actions of CA-2012-003494. Subsequent to NRC inspector inquiries, these issues were documented by CENG in CR-2014-001208. Additionally, CA-2014-000730 and CA-2014-000731 document CENG's additional planned CAs to revise the CR-2014-000197 ACE and to evaluate whether additional CAs are necessary to adequately address the failure to effectively implement CAs.

Procedure CNG-CA-1.01-1005, "Apparent Cause Evaluations," Revision 00603, requires, in part, that CAs are effective and address identified causes. It also states that the CA sponsor shall "review the proposed corrective, preventive, and compensatory actions to ensure the action is appropriate and will prevent recurrence."

Analysis. The inspectors determined that CENG's failure to effectively implement a CA to address all concerns related to HDT pump trips was a performance deficiency within CENG's ability to foresee and correct and should have been prevented. Specifically, CENG failed to effectively implement CA-2012-003493 to modify all procedures impacted by stopping HDT or condensate booster pumps. AP-FW.1 is such a procedure

and should have been included in CA-2012-003493, but was not included. This ultimately resulted in both HDT pumps tripping and an unplanned power reduction of approximately 31 percent power. This finding is more than minor because it is associated with the equipment performance attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure to effectively implement CA-2012-003493 and modify all procedures impacted by stopping HDT or condensate booster pumps, including AP-FW.1, resulted in both HDT pumps tripping and an unplanned power reduction of approximately 31 percent power. Additionally, this issue is similar to Example 4b described in IMC 0612, Appendix E, "Examples of Minor Issues," issued August 11, 2009, which states that issues are not minor if procedural issues cause a reactor trip or other transient. The inspectors evaluated the finding using IMC 0609, Attachment 0609.04, "Initial Characterization of Findings," issued June 19, 2012. The attachment instructs inspectors to utilize IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012. Using Exhibit 1, "Initiating Events Screening Questions," of IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, the inspectors determined this finding did not involve the complete or partial loss of a support system that contributes to the likelihood of, or cause, an initiating event and affect mitigation equipment and is therefore of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because individuals did not follow processes, procedures, and work instructions. Specifically, CENG staff did not follow their Apparent Cause Evaluation procedure and ensure that CAs (CA-2012-003494) were effectively implemented and addressed identified causes associated with the ACE for CR-2012-007133. [H.8]

Enforcement. CENG failed to effectively implement CA-2012-003494 and modify all procedures impacted by stopping HDT or condensate booster pumps, which resulted in both HDT pumps tripping and an unplanned power reduction from approximately 79 percent power to approximately 48 percent power in January 2014. These issues were entered into CENG's CAP as CR-2014-000197 and CR-2014-001208. This finding does not involve enforcement action because no violation of a regulatory requirement was identified. Because this finding does not involve a violation and is of very low safety significance, it is identified as a FIN. **(FIN 05000244/2014008-01, Failure to Effectively Implement Corrective Actions Associated with Heater Drain Tank Pump Tripping Issues)**

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed a sample of CRs associated with review of industry operating experience to determine whether CENG appropriately evaluated the operating experience information for applicability to Ginna and had taken appropriate actions, when warranted. The inspectors also reviewed evaluations of operating experience documents associated with a sample of NRC generic communications to ensure that CENG adequately considered the underlying problems associated with the issues for resolution via their corrective action program. In addition, the inspectors observed

various plant activities to determine if the station considered industry operating experience during the performance of routine and infrequently performed activities.

b. Assessment

The inspectors determined that CENG appropriately considered industry operating experience information for applicability, and used the information for corrective and preventive actions to identify and prevent similar issues when appropriate. The inspectors determined that operating experience was appropriately applied and lessons learned were communicated and incorporated into plant operations and procedures when applicable. The inspectors also observed that industry operating experience was routinely discussed and considered during the conduct of Plan-of-the-Day meetings and pre-job briefs.

c. Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed a sample of audits, including the most recent audit of the corrective action program, departmental self-assessments, and assessments performed by independent organizations. Inspectors performed these reviews to determine if CENG entered problems identified through these assessments into the corrective action program, when appropriate, and whether CENG initiated corrective actions to address identified deficiencies. The inspectors evaluated the effectiveness of the audits and assessments by comparing audit and assessment results against self-revealing and NRC-identified observations made during the inspection.

b. Assessment

The inspectors concluded that self-assessments, audits, and other internal CENG assessments were generally critical, thorough, and effective in identifying issues. The inspectors observed that CENG personnel knowledgeable in the subject completed these audits and self-assessments in a methodical manner. CENG completed these audits and self-assessments to a sufficient depth to identify issues which were then entered into the corrective action program for evaluation. In general, the station implemented corrective actions associated with the identified issues commensurate with their safety significance.

c. Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

During interviews with station personnel, the inspectors assessed the safety conscious work environment at Ginna. Specifically, the inspectors interviewed personnel to determine whether they were hesitant to raise safety concerns to their management and/or the NRC. The inspectors also interviewed the station Employee Concerns Program coordinator to determine what actions are implemented to ensure employees were aware of the program and its availability with regards to raising safety concerns. The inspectors reviewed the Employee Concerns Program files to ensure that CENG entered issues into the corrective action program when appropriate.

b. Assessment

During interviews, Ginna staff expressed a willingness to use the corrective action program to identify plant issues and deficiencies and stated that they were willing to raise safety issues. The inspectors noted that no one interviewed stated that they personally experienced or were aware of a situation in which an individual had been retaliated against for raising a safety issue. All persons interviewed demonstrated an adequate knowledge of the corrective action program and the Employee Concerns Program. Based on these limited interviews, the inspectors concluded that there was no evidence of an unacceptable safety conscious work environment and no significant challenges to the free flow of information.

c. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On March 13, 2014, the inspectors presented the inspection results to Mr. Michael Philippon, Plant General Manager, and other members of the Ginna staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Pacher, Site Vice President
M. Philippon, Plant General Manager
C. Barrett, Associate Engineer
J. Brzezniak, Software Engineer
D. Crowley, Principal Engineer
R. Fellows, Control Room Supervisor
D. Garofoli, Principal Engineering Analyst
C. Hook, Employee Concerns Program Coordinator
D. Hudnut, Simulator Testing Engineer
M. Ives, General Supervisor, Security Operations
J. Jackson, Supervisor, Engineering
J. Jackson, Manager of Licensing
T. Joachimczyk, Shift Manager
J. Jones, Supervisor, Engineering
D. Kenneston, Supervisor, Security Programs
S. Kimbrough, Principal Engineer
H. Klingenberger, Senior Engineering Analyst
P. Ledain, Senior Analyst, Performance Improvement
T. Mogren, Engineering Manager
T. Paglia, Operations Manager
E. Palmer, Director, Security
D. Pascuzzi, Supervisor, Engineering
W. Rapin, Principle Engineer
J. Sperr, Supervisor, Engineering
B. Weaver, Supervisor, Engineering
J. Zapetis, Senior Engineering Analyst

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

Opened and Closed

05000244/2014008-01	FIN	Failure to Effectively Implement Corrective Actions Associated with Heater Drain Tank Pump Tripping Issues

LIST OF DOCUMENTS REVIEWED

Section 4OA2: Problem Identification and Resolution

Audits and Self-Assessments

CAP-13-01-G, Corrective Action Program
RPP-13-01-G, Radiation Protection Program
SA-2011-000083, Radiation Program Training Program
SA-2011-000104, Operator Fundamentals
SA-2011-000127, IER 11-3 Operator Fundamentals Self-Assessment
SA-2011-000304, Operator Fundamentals in Training
SA-2012-000035 Emergency Preparedness Readiness for NRC Inspection
SA-2012-000063 Chemistry Training Program
SA-2012-000142 Snapshot Self-Assessment of the FIN Team Crew MRM
SA-2012-000088 Ginna Licensed Operator Requalification, 71111.11-type, and Simulator Health Focused Self-Assessment
SA-2012-000111, Annual Assessment of Radiological Groundwater Protection Program
SA-2012-000126, Perform Interim Effectiveness Review to Assess ACE Corrective Actions, CR-2011-006651
SA-2012-000152, Dosimetry Technician Training Program
SA-2012-000197, Radiation Protection (RP) Training MRM
SA-2012-000229, Assess Radiation Protection procedures to ensure alignment with A-601.1
SA-2012-000247, Effectiveness of CNG-CM-1.01-1003 and SEC-1005
SA-2013-000002, Equipment Reliability Semi-Annual Snapshot SA
SA-2013-000085, Equipment Reliability Semi Annual
SA-2013-000086, SOER 88-1 REC 4 IA System Failures
SA-2013-000213, Snapshot Self-Assessment for IER 4 11-38 Causes of Circuit Card Related Problems
SA-2013-000225 Snapshot Self-Assessment of SAT Process for Mechanical Maintenance 2012
SA-2013-000255, Security Response to Individuals Who Have Received an Explosive Alarm
SA-2013-000280, 2014 NS Snapshot: Access Control Program
SEC-13-01-G, Security, August 27, 2013

Condition Reports

CR-2009-006329	CR-2009-008477	CR-2010-000191	CR-2010-000210
CR-2010-005015	CR-2010-006323	CR-2010-007268	CR-2011-000299
CR-2011-000544	CR-2011-001113	CR-2011-002482	CR-2011-003110
CR-2011-002468	CR-2011-004498	CR-2011-004520	CR-2011-004914
CR-2011-005716	CR-2011-006025	CR-2011-006415	CR-2011-006652
CR-2011-007237	CR-2011-007245	CR-2011-007883	CR-2011-007889
CR-2011-008659	CR-2012-000056	CR-2012-000294	CR-2012-000297
CR-2012-000544	CR-2012-000591	CR-2012-000603	CR-2012-000728
CR-2012-000853	CR-2012-000936	CR-2012-000977	CR-2012-001084
CR-2012-001153	CR-2012-001292	CR-2012-001387	CR-2012-001548
CR-2012-002035	CR-2012-002234	CR-2012-002331	CR-2012-002569
CR-2012-002682	CR-2012-002771	CR-2012-002825	CR-2012-002926
CR-2012-003008	CR-2012-003351	CR-2012-003406	CR-2012-003458
CR-2012-003505	CR-2012-003506	CR-2012-003507	CR-2012-003508
CR-2012-003510	CR-2012-003793	CR-2012-003811	CR-2012-004066

CR-2012-004267	CR-2012-004290	CR-2012-004385	CR-2012-004408
CR-2012-004569	CR-2012-004619	CR-2012-004628	CR-2012-004709
CR-2012-005457	CR-2012-005494	CR-2012-005588	CR-2012-005619
CR-2012-006048	CR-2012-006368	CR-2012-006529	CR-2012-007021
CR-2012-007027	CR-2012-007082	CR-2012-007133	CR-2012-007499
CR-2012-007594	CR-2012-007623	CR-2012-007630	CR-2012-007632
CR-2012-007792	CR-2012-007843	CR-2012-007874	CR-2012-008003
CR-2012-008208	CR-2012-008306	CR-2012-008407	CR-2012-008442
CR-2012-008494	CR-2012-008496	CR-2012-008504	CR-2012-008908
CR-2012-008912	CR-2012-009204	CR-2013-000028	CR-2013-000126
CR-2013-000296	CR-2013-000404	CR-2013-000493	CR-2013-000922
CR-2013-001093	CR-2013-001099	CR-2013-001102	CR-2013-001181
CR-2013-001223	CR-2013-001225	CR-2013-001243	CR-2013-001249
CR-2013-001252	CR-2013-001345	CR-2013-001368	CR-2013-001619
CR-2013-001929	CR-2013-001956	CR-2013-002275	CR-2013-002338
CR-2013-002350	CR-2013-002373	CR-2013-002389	CR-2013-002604
CR-2013-002608	CR-2013-002621	CR-2013-002659	CR-2013-002702
CR-2013-002790	CR-2013-002791	CR-2013-002828	CR-2013-002852
CR-2013-002906	CR-2013-003075	CR-2013-003111	CR-2013-003206
CR-2013-003246	CR-2013-003279	CR-2013-003377	CR-2013-003536
CR-2013-003682	CR-2013-003872	CR-2013-003889	CR-2013-003983
CR-2013-004063	CR-2013-004081	CR-2013-004427	CR-2013-004461
CR-2013-004474	CR-2013-004477	CR-2013-004582	CR-2013-004592
CR-2013-004708	CR-2013-004752	CR-2013-004765	CR-2013-004820
CR-2013-004859	CR-2013-004911	CR-2013-004920	CR-2013-004929
CR-2013-004975	CR-2013-004986	CR-2013-005033	CR-2013-005101
CR-2013-005221	CR-2013-005222	CR-2013-005274	CR-2013-005337
CR-2013-005378	CR-2013-005384	CR-2013-005599	CR-2013-005643
CR-2013-005667	CR-2013-005796	CR-2013-006041	CR-2013-006051
CR-2013-006153	CR-2013-006231	CR-2013-006232	CR-2013-006265
CR-2013-006296	CR-2013-006302	CR-2013-006559	CR-2013-006630
CR-2013-006643	CR-2013-006683	CR-2013-006684	CR-2013-006708
CR-2013-006730	CR-2013-006779	CR-2013-006874	CR-2014-000032
CR-2014-000196	CR-2014-000197	CR-2014-000216	CR-2014-000219
CR-2014-000229	CR-2014-000337	CR-2014-000499	CR-2014-000575
CR-2014-000582	CR-2014-000584	CR-2014-000587	CR-2014-000588
CR-2014-000795	CR-2014-000975	CR-2014-000981	CR-2014-000983
CR-2014-001011	CR-2014-001037	CR-2014-001053	CR-2014-001072
CR-2014-001208	CR-2014-001283	CR-2014-001287	CR-2014-001289
CR-2014-001291	CR-2014-001299	CR-2014-001304	

Drawings

33013-1232, Main Steam Non-Safety Related (MS) P&ID, Revision 33
33013-1233, Condensate Low Pressure FW Heaters (CDST) P&ID, Revision 34
33013-1236, Feedwater (FW) P&ID, Sheet 1, Revision 17
33013-1250, Station Service Cooling Water Safety Related (SW) P&ID, Sheet 2, Revision 48
33013-1252, Condensate P&ID, Revision 30
33013-1922, Feedwater Heater Vents, Relief and Misc. Drains P&ID, Revision 20
33013-1923, Feedwater Heater Drain System P&ID, Revision 29

Operating Experience

OE-2009-000565, 090310 – IN 09-02 Biodiesel In Fuel Oil Could Adversely Impact Diesel Engine Performance
OE-2011-000530 Load Tap Changer Control Power
OE-2011-001480 IER L1-11-2 Weakness in Operator Fundamentals
OE-2011-002285 IER L4 11-38, Causes of Circuit Card Related Problems
OE-2011-002780, 111110 – IER L2-11-46, Extended Emergency Power Operations Following A Loss of Off-Site Power
OE-2012-000883 IER-L2-12-27 Reactor Scram and Loss of Offsite Power
OE-2012-001119 IN12-04, Impacts on Normal Plant Operations Due to Leaks or Spills of Chemicals
OE-2012-001983 IN12-11, Age-Related Capacitor Degradation
OE-2012-002307, OE36593 – Emergency Diesel Generator Room Ventilation Test Adequacy (Point Beach)
OE-2012-002876, OE300567R20121120 Class 1E Instrument Power Inverter Constant Voltage Transformer Failed Resulting In A Transfer To The Bypass Source
OE-2012-002876-001, OE300567R20121120 Class 1E Instrument Power Inverter Constant Voltage Transformer Failed Resulting In A Transfer To The Bypass Source
OE-2012-003091 IN12-21, Reactor Vessel Closure Head Studs Remain Detensioned During Plant Startup
OE-2013-002484, OE306698R20130719 External Flood Paths Identified in Auxiliary Building After Stator Drop Event

Non-Cited Violations and Findings

05000244/2012005-04 FIN, Incorrect Oil Filter Gasket Installed in the 'B' Main Feedwater Pump Canister Cover
05000244/2013004-03 FIN, Inadequate Guidance for Workers to Implement a Modification to the Main Generator Digital Protection Relays
05000244/2012005-02 NCV Failure to Perform an Adequate Extent-of-Condition Review for Water Identified in the Technical Support Center Diesel Fuel Storage Tank
05000244/2012005 NCV Failure to meet conduct of operations requirements leads to loss of spent fuel pool cooling
05000244/2012008-01, Failure to Validate Plant Safe Shutdown Timeline for Design Basis Tornado
05000244/2012403-01, Failure to Analyze and Identify Site Specific Conditions
05000244/2013003-01 NCV Failure to Establish Measures to Assure that a Misaligned Service Water Pump was Promptly Identified and Corrected
05000244/2013004-02 NCV Failure to Implement Scaffolding Procedure Requirements
05000244/2013007-01, NCV Required Voltage and Timing Criteria for Load Tap Changer Controls and Motor
05000244/2013202-01, Failure to Implement a Proper IDS Testing Program

Procedures

A-601.10, Time Critical Action Management Program, Revision 00003
A-601.10, Time Critical Action Management Program, Revision 00300
AP-FW.1, Abnormal MFW Pump Flow or NPSH, Revision 01802
AP-TURB.5, Rapid Load Reduction, Revision 01501

CH-190, R.E. Ginna Nuclear Power Plant Technical Procedure, Diesel Fuel Oil Testing Program, Revision 00500
CNG-AM-1.01-1018, Preventive Maintenance Program, Revision 00801
CNG-CA-1.01-1000, Corrective Action Program, Revision 01000
CNG-CA-1.01-1000, Constellation Energy Nuclear Generation Fleet Guideline, Corrective Action Program, Revision 00902
CNG-CA-1.01-1001, Constellation Energy Nuclear Generation Fleet Guideline, Management Review Committee, Revision 00500
CNG-CA-1.01-1004, Constellation Energy Nuclear Generation Fleet Administrative Procedure, Root Cause Analysis, Revision 00804
CNG-CA-1.01-1005, Constellation Energy Nuclear Generation Fleet Administrative Procedure, Apparent Cause Evaluation, Revision 00603
CNG-CA-1.01-1007, Constellation Energy Nuclear Generation Fleet Guideline, Performance Improvement Program Trending and Analysis, Revision 00401
CNG-CA-1.01-1010, Use of Operating Experience, Revision 01000
CNG-CA-1.01-GL002, Causal Analysis Handbook, Revision 00600
CNG-CA-1.01-GL002, Constellation Energy Nuclear Generation Fleet Guideline, Causal Analysis Handbook, Revision 00600
CNG-CA-1.01-GL007, Constellation Energy Nuclear Generation Fleet Guideline, Departmental Corrective Action Review Team (DCART), Revision 00100
CNG-CA-1.01-GL008, Constellation Energy Nuclear Generation Fleet Guideline, Corrective Action Completion Evaluation (CACE), Revision 00200
CNG-CA-2.01-1000, Constellation Energy Nuclear Generation Fleet Administrative Procedure, Self-Assessment and Benchmarking Process, Revision 00703
CNG-MN-1.01-1005, Scaffold Control, Revision 00400
CNG-NL-1.01-1005, 10 CFR 21 Screening, Evaluating, and Reporting, Revision 0000
CNG-OP-1.01-1009, Monitoring and Contingency Planning for Abnormal Conditions, Revision 00100
CNG-OP-1.01-GL007, Operational Configuration Control, Revision 00200
CNG-QL-3.01-1001, Constellation Energy Nuclear Generation Fleet Administrative Procedure, Safety Conscious Work Environment and Employee Concerns Program, Revision 00301
CPI-TRIP-TEST-5.40, Reactor Protection System Trip Test/Calibration for Channel 4 (Yellow) Bistable Alarms, Revision 03204
ER-D/G.1, Restoring D/G's, Revision 01800
GL-SEC-04, Process Guideline Classification of Security Operating Experience (OE) Into Site Process, Revision 00100
IP-ALA-1, R.E. Ginna Nuclear Power Plant Station Administrative Procedure, ALARA Challenge Board, Revision 00100
IP-OPS-6, R.E. Ginna Nuclear Power Plant Station Administrative Procedure, Control of Spent Fuel Pool Activities, Revision 00000
IP-RPP-9, R.E. Ginna Nuclear Power Plant Station Administrative Procedure, Department ALARA Advocate, Revision 00000
NTG-13, Ginna Station Nuclear Training Guideline, Continuing Training Plans, Revision 16
RPG-74, Radiation Protection Guideline, Revision 00001
Ginna Nuclear Procurement Specification, Circuit card refurbishment / Repair Specification, Revision 0 dated April 11, 2012
CNG-EV-1.01-1002, Constellation Energy Nuclear Generation Fleet Administrative Procedure, Chemical Control Program, Revision 00401
MMP-GM054-00001, Permanent Fire Barrier Penetration Seal Installation/Repair, Revision 00100
O-6.13, Daily Surveillance Log, Revision 18106

OSG-01, Online Schedule Guideline, Revision 01500
OSG-01, Ginna Specific Online Scheduling Guideline, Revision 02400
SEC-1007, Protected & Vital Area Keys & Security Related Equipment Keys, Revision 00103
SEC-CAS-SAS, Central/Secondary Alarm Station Operation, Revision 00600
SES-SSS-RTL, Security Shift Supervisor/Response Team Leader Duties," Revision 00500
STP-O-12.6-COMP-A, Diesel Generator Fuel Oil Transfer Pump A Comprehensive Test, Revision 00300
STP-O-12.6A, Diesel Generator Fuel Oil Transfer Pump A Test, Revision 00800

Work Orders

C91293582
C91864171
C92292290
C92491983

Miscellaneous

10 CFR 50.54(q) Analysis for Public Alerting System
AI-2011-001107-001
AI-2012-001423
ANSI/ANS 3.5-2009, Nuclear Power Plant Simulators for use in Operator Training and Examination
Apparent Cause Evaluation for CR-2012-006214, Negative Trend in decay Heat Removal
Category 1 Root Cause Analysis CR-2011-000544, Safety Tagging
Category 1 Root Cause Analysis CR-2012-000544
Category 1 Root Causal Analysis for CR-2013-003581, Operating crews do not implement some actions important to transient and accident mitigation
Category 1 Root Cause Analysis CR-2013-004461, Generator Trip during VAR Testing
CENG Letter Subject Report Taken in Response to INPO Event Report L1-11-3 dated September 30, 2011
CENG Letter Subject Report on Actions Taken in Response to INPO Event Report IER L2-12-27 dated September 7, 2012
CENG Request for Quote Pref #10404 Revision 1
CENG email from Maureen Kuchta to Dale Markowski etal, dated April 29, 2013 Subject "B" SW Pump Shaft Charpy Impact Results
CENG PO 6612799 Revisions 0, 1, 2 and 3
DA-EE-96-068-03 Ginna Offsite Power Load Flow Study
Data List of 94 pages of simulator CRs and discrepancies from 2009 to 2014
ECP-2009-0262, Condensate System Design Pressure Re-Rate, Revision 0
Flowserve Certificate of Conformance dated August 25 for PO 6612799, Revision 3
Flowserve letter dated March 21, 2011, Subject RFQ 10404
Flowserve letter dated April 19, 2013 Subject Shaft Design considerations for model 20H 500-2 Stage Service Water Pump, Worthington/Flowserve Serial Number VTP-19891/94
G1-HRA-F001, FIRE PRA Notebook Human Reliability Analysis (HRA), Revision 002
Gap Analysis for CR-2012-002926 NRC Green NCV
Gap Analysis for CR-2013-001093 Failure to meet conduct of operations requirements
ISTM-160, In-Service Test Program Memorandum, October 9, 2009
ISTM-172, In-Service Test Program Memorandum, November 11, 2010
ISTM-182, In-Service Test Program Memorandum, April 27, 2012
Performance Improvement Report, November 2013

PRAER-G1-2011-007, Turb Bld Fire Which Could Fail DG Output Breakers to Busses 14 and 16-Best Estimate, Revision 0
RP-TECH-SUPPORT-2013-0008
SDR 2009-195 Simulator Discrepancy Report
Spent Fuel Pool and Associated Transfer Canal Area FME Project Plan

LIST OF ACRONYMS

ACE	Apparent Cause Evaluation
ADAMS	Agency-wide Documents Access and Management System
AOV	Air Operated Valve
CA	Corrective Action
CENG	Constellation Energy Nuclear Group, LLC
CR	Condition Report
CFR	Code of Federal Regulations
ECP	Engineering Change Package
FIN	Finding
HDT	Heater Drain Tank
IMC	Inspection Manual Chapter
MFW	Main Feedwater
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records System
PCR	Procedure Change Request
RPS	Reactor Protection System
RVLIS	Reactor Vessel Level Instrumentation System
SDP	Significance Determination Process
TIU	Total Instrument Uncertainty