



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

July 9, 2010

Mr. John T. Carlin, Vice President
R.E. Ginna Nuclear Power Plant, LLC
Constellation Energy Nuclear Group, LLC
1503 Lake Road
Ontario, New York 14519

**SUBJECT: R.E. GINNA NUCLEAR POWER PLANT – NRC PROBLEM IDENTIFICATION
AND RESOLUTION INSPECTION REPORT 05000244/2010006**

Dear Mr. Carlin:

On June 11, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your R.E. Ginna Nuclear Power Plant. The enclosed report documents the inspection results, which were discussed on June 11, 2010, with you and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

Based on the samples selected for review, the inspection team concluded that Constellation was generally effective in identifying, evaluating and resolving problems. Ginna personnel identified problems at a low threshold and entered them into the Corrective Action Program (CAP). Ginna screened issues appropriately for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. Corrective actions addressed the identified causes and were typically implemented in a timely manner. However, the team noted several examples of less than adequate evaluation or documentation of evaluations, and examples where corrective actions were not timely and effective.

This report documents one NRC-identified finding of very low safety significance (Green). The finding was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it has been entered into your corrective action program, the NRC is treating this finding as a non-cited violation (NCV), in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny the non-cited violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the U.S. Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001, with copies to the Regional Administrator, Region I; the Director,

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Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Senior Resident Inspector at the R.E. Ginna Nuclear Power Plant. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, 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 Senior Resident Inspector at the R.E. Ginna Nuclear Power Plant.

In accordance with 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 (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,



Glenn T. Dentel, Chief
Projects Branch 1
Division of Reactor Projects

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

Enclosure: Inspection Report No. 05000244/2010006
w/ Attachment: Supplemental Information

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Sincerely,

/RA/
Glenn T. Dentel, Chief
Projects Branch 1
Division of Reactor Projects

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-244

License No.: DPR-18

Report No.: 05000244/2010006

Licensee: Constellation Energy Nuclear Group, LLC

Facility: R.E. Ginna Nuclear Power Plant, LLC

Location: Ontario, New York

Dates: May 24 through June 11, 2010

Team Leader: Neil Perry, Senior Project Engineer, Division of Reactor Projects (DRP)

Inspectors: Michael Modes, Senior Reactor Inspector, Division of Reactor Safety
Lauren Casey, Resident Inspector, DRP
Ami Rao, Project Engineer, DRP

Approved by: Glenn T. Dentel, Chief
Projects Branch 1
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000244/2010006; 05/24/2010 – 06/11/2010; R.E. Ginna Nuclear Power Plant; Biennial Baseline Inspection of the Identification and Resolution of Problems. One finding was identified in the area of effectiveness of corrective actions.

This team inspection was performed by three NRC regional inspectors and one resident inspector. One finding of very low safety significance (Green) was identified during this inspection and was classified as a non-cited violation (NCV). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using NRC Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). The cross-cutting aspect was determined using IMC 0310, "Components Within The Cross-Cutting Areas." Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, December 2006.

Identification and Resolution of Problems

The team concluded that Constellation was generally effective in identifying, evaluating, and resolving problems. Ginna personnel identified problems at a low threshold and entered them into the Corrective Action Program (CAP). The team determined that Ginna screened issues appropriately for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. The team determined that corrective actions addressed the identified causes and were typically implemented in a timely manner. However, the team noted one example of very low safety significance involving less than adequate corrective actions resulting in an NRC-identified finding. The issue was entered into Constellation's CAP during the inspection.

Constellation's audits and self-assessments reviewed by the team were thorough and probing. Additionally, the team concluded that Constellation adequately identified, reviewed, and applied relevant industry operating experience (OE) to the R.E. Ginna Nuclear Power Plant. Based on interviews, observations of plant activities, and reviews of the CAP and the Employee Concerns Program (ECP), the team did not identify any concerns with site personnel willingness to raise safety issues nor did the team identify conditions that could have had a negative impact on the site's safety conscious work environment.

Cornerstone: Mitigating Systems

Green. The team identified an NRC-identified finding of very low safety significance associated with a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," in that measures were not established to assure that a condition adverse to quality was promptly identified and corrected. Specifically, after

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Ginna identified that monthly samples of the emergency diesel generator (EDG) jacket water system were not being taken and analyzed for chlorides and fluorides, a sample was not taken and analyzed for approximately five months. Additionally, after the analysis indicated that the chlorides were over twice the procedural limit, Ginna did not increase the chloride sampling frequency, did not take action to return the chlorides to within specifications, and did not complete an analysis for long term effects on the EDG as required by chemistry procedure CH-138, "Closed Cooling Water Systems Chemistry Optimization Plan," Revision 1. Ginna's corrective actions included evaluating the degradation of the A EDG jacket water due to the elevated chloride level in the A EDG jacket water heat exchanger exceeding 90 days and developing a plan to reduce the chloride level to within specification.

This finding is more than minor because if left uncorrected, elevated chloride levels in the A EDG jacket water system could lead to a more significant safety concern. Specifically, elevated chlorides in the A EDG jacket water heat exchanger could lead to degradation of the jacket water heat exchanger through stress corrosion cracking and impact the reliability of the A EDG. This finding is associated with the Mitigating Systems Cornerstone and affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The team determined that the finding was of very low safety significance (Green), because it was not a design or qualification deficiency confirmed not to result in loss of operability; did not result in a loss of safety function; and did not screen as potentially risk significant due to a seismic, flooding, or a severe weather initiating event. This finding has a cross-cutting aspect in the area of problem identification and resolution because Ginna did not take appropriate actions to address the elevated chloride level in the A EDG jacket water system (P.1(d) per IMC 0310).

Other Findings

None

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REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (PI&R) (71152B)

.1 Assessment of the Corrective Action Program (CAP) Effectiveness

a. Inspection Scope

The team reviewed Constellation's procedures that describe the CAP at the R.E. Ginna Nuclear Power Plant (Ginna). Constellation personnel identified problems by initiating condition reports (CRs) for conditions adverse to quality, plant equipment deficiencies, industrial or radiological safety concerns, and other significant issues. Condition reports were subsequently screened for operability and reportability, categorized by significance level (1, most significant, through 4, least significant), and assigned to personnel for evaluation and resolution or trending.

The team evaluated the process for assigning and tracking issues to ensure that issues were screened for operability and reportability, prioritized for evaluation and resolution in a timely manner commensurate with their safety significance, and tracked to identify adverse trends and repetitive issues. In addition, the team interviewed plant staff and management to determine their understanding of, and involvement with, the CAP.

The team reviewed CRs selected across the seven cornerstones of safety in the NRC's Reactor Oversight Process (ROP) to determine if site personnel properly identified, characterized, and entered problems into the CAP for evaluation and resolution. The team selected items from functional areas that included chemistry, emergency preparedness, engineering, maintenance, operations, physical security, radiation safety, and oversight programs to ensure that Constellation appropriately addressed problems identified in these functional areas. The team selected a risk-informed sample of CRs that had been issued since the last NRC PI&R inspection conducted in September 2008. Insights from the station's risk analyses were considered to focus the sample selection and plant walkdowns on risk-significant systems and components. The corrective action review was expanded to five years for evaluation of identified concerns within CRs relative to overdue preventive maintenance (PM) and surveillance activities, and the charging pumps.

The team selected items from various processes at Ginna to verify that they were appropriately considered for entry into the CAP. Specifically, the team reviewed a sample of engineering requests, operator workarounds, operability determinations, system health reports, equipment problem lists, work orders (WOs), and issues entered into the Employee Concerns Program (ECP). Plant areas walked down included the: control room, intake structure, emergency diesel generators (EDGs), and auxiliary and intermediate buildings.

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The team reviewed CRs to assess whether Constellation personnel adequately evaluated and prioritized identified issues. The CRs reviewed encompassed the full range of evaluations, including root cause analyses, apparent cause evaluations, and common cause analyses. A sample of CRs that were assigned lower levels of significance which did not include formal cause evaluations were also reviewed by the team to ensure they were appropriately classified. The team's review included the appropriateness of the assigned significance, the scope and depth of the causal analysis, and the timeliness of resolution. The team assessed whether the evaluations identified likely causes for the issues and identified appropriate corrective actions to address the identified causes. As part of this review, the team interviewed various station personnel to fully understand details within the evaluations, and the proposed and completed corrective actions. The team observed CR screening meetings and management review committee (MRC) meetings in which Constellation personnel reviewed new CRs for prioritization and assignment. Further, the team reviewed equipment operability determinations, reportability assessments, and extent-of-condition reviews for selected CRs to verify these specific reviews adequately addressed equipment operability, reporting of issues to the NRC, and the extent of problems.

The team's review of CRs also focused on the associated corrective actions in order to determine whether the actions addressed the identified causes of the problems. The team reviewed CRs for adverse trends and repetitive problems to determine whether corrective actions were effective in addressing the broader issues. The team reviewed Constellation's timeliness in implementing corrective actions and effectiveness in precluding recurrence for significant conditions adverse to quality. Lastly, the team reviewed CRs associated with NRC non-cited violations (NCVs) and findings since the last PI&R inspection to determine whether Constellation personnel properly evaluated and resolved the issues. Specific documents reviewed during the inspection are listed in the Attachment to this report.

b. Assessment

Effectiveness of Problem Identification

Based on the selected samples reviewed, plant walkdowns, and interviews of site personnel, the team determined that Constellation personnel identified problems at a low threshold and entered them into the CAP. For the issues reviewed, the team noted that problems or concerns had been appropriately documented in enough detail to understand the issues. The team observed managers and supervisors at MRC meetings appropriately questioning and challenging CRs to ensure clarification of the issues. The team determined that Constellation trended equipment and programmatic issues, and CR descriptions appropriately included references to repeat occurrences of issues. The team concluded that personnel were identifying trends at low levels. In general, the team did not identify any significant issues or concerns that had not been appropriately entered into the CAP for evaluation and resolution. In response to several minor issues identified by the team, Constellation personnel promptly initiated CRs and/or took immediate action to address the issue.

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Effectiveness of Prioritization and Evaluation of Issues

The team determined that, in general, Constellation personnel appropriately prioritized and evaluated issues commensurate with their safety significance. CRs were screened for operability and reportability, categorized by significance, and assigned to a department for evaluation and resolution. The CR screening process considered human performance issues, radiological safety concerns, repetitiveness and adverse trends. The team observed managers and supervisors at MRC meetings appropriately questioning and challenging CRs to ensure appropriate prioritization.

CRs were categorized for evaluation and resolution commensurate with the significance of the issues. Based on the sample of CRs reviewed, the guidance provided by the Constellation implementing procedures appeared sufficient to ensure consistency in categorization of the issues. Operability and reportability determinations were performed when conditions warranted and the evaluations supported the conclusions. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. During this inspection, the team noted that Constellation's root cause analyses were generally thorough, and corrective and preventive actions addressed the identified causes. Additionally, the identified causes were well supported.

However, there were several instances of less than adequate evaluation or documentation of evaluations within the CRs reviewed, for example:

- The team reviewed a number of Category 2 CRs with apparent cause evaluations that were evaluated by non-certified individuals. Ginna procedure CNG-CA-1.01-1005, "Apparent Cause Evaluation (ACE)," section 5.8 requires ACE evaluators to be certified by the Director of Performance Improvement. Ginna initiated several CRs identifying the use of non-certified ACE evaluators. The inspectors reviewed CR-2009-8235, where eight Category 2 CRs had been completed by operations since May 1, 2009 that had a non-certified ACE evaluator contrary to the requirements of CNG-CA-1.01-1005. The inspectors questioned whether the eight identified ACEs had been re-evaluated by certified ACE evaluators for quality and completeness. Constellation had addressed the procedural adherence and training verification aspects of the issue; however, there was no corrective action to verify the quality of the ACEs performed by the non-certified individuals. Ginna initiated CR-2010-003350 and concluded that the ACEs had all been adequately evaluated based on the review completed by the MRC.
- On March 9, 2009, a Ginna radiation worker entered a high radiation area (HRA) on a radiation work permit (RWP) that did not allow HRA entry. This condition was documented in CR-2009-001575. Ginna implemented several corrective actions to prevent a worker from entering the radiologically controlled area (RCA) on the incorrect RWP. To ensure that their corrective actions were adequate, Ginna conducted an effectiveness review of all CRs from May 1, 2009, to

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December 31, 2009, to verify that there were no repeat occurrences. Ginna's effectiveness review concluded that there were no repeat occurrences. During the team's CR review the team identified CR-2009-006417, which documented that a Ginna employee entered the RCA on the wrong RWP task number on September 14, 2009. Specifically, the employee entered containment on a task number that did not allow containment entries. Ginna failed to include CR-2009-006417 in their effectiveness review for CR-2009-001575. CR-2010-003664 documented this instance of an inadequate effectiveness review performed by Ginna.

- On October 9, 2008, the resident inspectors identified a potential unmonitored release path to the environment with door 28 open inside of the auxiliary building and positive auxiliary building pressure. Ginna documented this condition in CR-2008-008520. Ginna implemented several corrective actions to prevent unmonitored release paths from the RCA. To ensure that their corrective actions were adequate, Ginna conducted an effectiveness review of all CRs from January 23, 2009, to January 22, 2010, to verify that there were no repeat occurrences. During the team's CR review however, the team identified CR-2009-006376, which documented potential unmonitored release paths from doors 40 and 45 on September 14, 2009. Ginna failed to include CR-2009-006376 in their effectiveness review for CR-2008-008520. CR-2010-003664 documented this instance of an inadequate effectiveness review performed by Ginna.
- The team reviewed operability determination documentation associated with CRs, and noted several which did not adequately give a basis for the determination that the equipment was operable. No instances were identified by the team where the equipment was incorrectly determined to be operable. Ginna entered this issue into the CAP as CR-2010-003663.
- On November 25, 2009, during STP-O-2.7.1B, "Loop B Service Water Pump Test," Revision 0, Ginna operators noted that the service water loop B inlet isolation valve to the EDG heat exchangers, 4668B, had metal shavings on the threads and hand wheel bushing of the valve. This condition was documented in CR-2009-008835 and WO C90714049 was completed to clean and lubricate the valve. During the next quarterly surveillance test on February 22, 2010, Ginna operators noted that when attempting to close valve 4668B, the hand wheel spun freely and the valve remained in the open position as documented in CR-2010-001207. Subsequent investigation revealed that the valve failed to close due to deterioration of the stem bushing threads as a result of improper lubrication. Ginna failed to identify that the metal shavings noted on the threads and hand wheel bushing of valve 4668B indicated significant bushing deterioration on November 25, 2009. This resulted in valve 4668B failing to close on February 22, 2010, during subsequent surveillance testing. The inspectors determined

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that valve 4668B was not required to be closed between November 25, 2009, and February 22, 2010, and therefore EDG operability was not impacted. The valve's safety function is to remain open.

The team independently evaluated the deficiencies noted above for potential significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Issues." The team determined that the issues were not findings of more than minor significance.

Effectiveness of Corrective Actions

The team concluded that corrective actions for identified deficiencies were generally timely and adequately implemented. For significant conditions adverse to quality, corrective actions were identified to prevent recurrence. The team concluded that corrective actions to address NRC NCVs and findings since the last PI&R inspection were timely and effective. There were, however, a few examples where corrective actions were not timely and effective, for example:

- The team reviewed a test performed past its due date on an EDG fuel oil booster pump relief valve. The relief valve lift setpoint was found lower than the acceptable range. Ginna therefore removed the other EDG's relief valve in November 2009 for testing as required by the in-service test (IST) program. When the team, on June 9, 2010, asked for the results of the testing on the second valve, Ginna personnel discovered that the valve had not yet been sent out for testing. The valve was then sent out, and results were received on June 21, 2010; results indicated that the valve passed the pressure lift test. Ginna entered the issue of not sending the valve out for testing in a timely manner into the CAP as CR-2010-003640. Ginna entered the issue of the impact of the delayed testing on the valve into the CAP as CR-2010-003685.
- Corrective actions recommended for the motor driven auxiliary feedwater (MDAFW) check valve (4000C) failure in 2006 were not implemented or adequately dispositioned in 2006. The team reviewed two ACE reports (CR-2006-000721, CR 2008-008345) associated with valve 4000C failing to close after completion of performance of the A MDAFW pump quarterly surveillance test in 2006 and 2008. It was determined that the apparent cause of the valve failure in 2006 was corrosion and wear. The recommended corrective actions for this apparent cause were: 1) shorter actuation and maintenance cycles to prevent sticking due to periods with no use; 2) smoother valve surfaces to prevent adhesion of corrosion product; and 3) an alternate valve design or relocating the valve farther away from the elbow. None of the recommended corrective actions, after the 2006 failure, were implemented; however, the valve was replaced with a like-for-like valve. The replacement valve did not pass the acceptance criteria for the next prompt closure test in 2008; however, the valve did pass the operability test for closure. The apparent cause of valve 4000C failing the prompt closure test in 2008 was the location and design of the valve.

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Valve chatter during operation caused the disc to wear, which created a leakage path. The valve chatter in combination with the reduced margin due to the valve repair caused the valve to fail the prompt closure test after only two years of service. The team concluded that the failure to implement the recommended corrective actions in 2006 resulted in the valve failing the prompt closure acceptance criteria in 2008. Appropriate corrective actions were initiated in 2008. Although the valve failed the prompt closure test in 2008, A MDAFW operability was not impacted.

- After Ginna identified in 2008 that a number of surveillances and PM activities were missed and performed late, actions were ineffective in correcting the conditions throughout 2009 and into 2010. Three surveillances were missed in 2008 (A MDAFW pump comprehensive [full flow] pump surveillance, EDG fuel oil booster pump relief valve test, and plant vent mass air flow check surveillance); two PMs were missed in 2009 (ultrasonic noise analysis for lightning arrester monitoring and thermography PM for battery charger A1); and one PM was missed in 2010 (auxiliary and intermediate building fuseable link dampers). Corrective actions were taken by Ginna during this time period, but were not completely effective in resolving the issues that resulted in PMs or surveillances being performed past the late end date. Additionally, on March 22, 2010, Ginna completed an effectiveness review of all CRs for missed PMs and surveillances from May 20, 2009, to February 18, 2010, and identified one missed PM (CR-2010-000273). During the inspector's review, the team identified one additional missed PM (CR-2010-003279) for thermography on battery charger A1 which passed its late end date on October 29, 2009, which was not identified in the effectiveness review as the scope of the effectiveness review only included a CR search. In 2010, Ginna initiated more comprehensive corrective actions, including organizational changes and program tracking changes which were designed to replace the interim corrective actions taken in 2008 and 2009. These changes took effect after the missed PM in 2010, and no other missed PMs or surveillances were identified. In all cases, system functionality was not impacted.

The team independently evaluated the deficiencies noted above for potential significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Issues." The team determined that the issues were not findings of more than minor significance.

The team identified one additional example where corrective actions were not effective in addressing the issue. The team determined that Constellation did not implement timely and appropriate corrective actions with respect to verifying proper EDG jacket water chemistry as described below.

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c. FindingsEDG Jacket Water Chemistry

Introduction. The team identified an NRC-identified finding of very low safety significance (Green) associated with a NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," in that measures were not established to assure that a condition adverse to quality was promptly identified and corrected. Specifically, after Ginna identified that monthly samples of the EDG jacket water system were not being taken and analyzed for chlorides and fluorides, a sample was not taken and analyzed for approximately five months. Additionally, after the analysis indicated that the chlorides were over twice the procedural limit, Ginna did not increase the chloride sampling frequency, did not take action to return the chlorides to within specifications, and did not complete an analysis for long term effects on the EDG as required by chemistry procedure CH-138, "Closed Cooling Water Systems Chemistry Optimization Plan," Revision 1.

Description. On October 28, 2009, Ginna identified that they were not in compliance with chemistry procedure CH-138, "Closed Cooling Water Systems Chemistry Optimization Plan," Revision 1. Specifically, Ginna was not performing chloride and fluoride analysis as required by procedure CH-138 on the EDG jacket water cooling system and on the component cooling water (CCW) system. Ginna wrote CR-2009-008213 to document this condition. Approximately five months later in March of 2010, Ginna sampled the diesel jacket water for both the A and B EDGs and both trains of CCW and analyzed the samples for chloride and fluoride levels. Sample results were received on April 15, 2010, and revealed that the A EDG jacket water chloride value was out of specification at 23 parts per million (ppm), more than twice the procedural limit.

Procedure CH-138 specifies a chloride target level of less than 10 ppm. If this value is exceeded, CH-138 requires increased monitoring as appropriate, and that chlorides be reduced to less than 10 ppm within 90 days. A limit of 10 ppm is established to prevent stress corrosion cracking (SCC) of the stainless steel tubes within the EDG jacket water cooling heat exchangers. Ginna documented the elevated chloride level in the A EDG jacket water heat exchanger in CR-2010-002480. However, contrary to procedure CH-138, Ginna did not increase the sampling frequency and did not take action to reduce the chloride level to less than 10 ppm within 90 days, or perform an engineering evaluation showing that the elevated chloride level did not adversely affect the long term reliability of the A EDG. Ginna continued to sample and trend the chloride level of the A EDG jacket water on a monthly frequency. Chloride results for April and May continued to exceed action level criteria of greater than 10 ppm at 33 ppm and 30 ppm, respectively.

After the team questioned the corrective actions, Ginna evaluated the degradation of the A EDG jacket water due to the elevated chloride level in the A EDG jacket water heat exchanger exceeding 90 days and developed a plan to reduce the chloride level to within specification as documented in CR-2010-003648. Ginna's evaluation determined

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that there was no immediate impact to the jacket water heat exchanger due to the elevated chlorides based on the system pH, the type of stainless steel tubes used in the heat exchanger, the vertical orientation of the heat exchanger, the fact that the tubes were replaced in 2009, and the water temperature of the system.

Analysis. The performance deficiency associated with this finding was that Ginna did not take timely and appropriate corrective actions to address the elevated chloride level in the A EDG jacket water heat exchanger as required by CH-138, "Closed Cooling Water Systems Chemistry Optimization Plan," Revision 1. The finding was more than minor because if left uncorrected, elevated chloride levels in the A EDG jacket water system could lead to a more significant safety concern. Specifically, elevated chlorides in the A EDG jacket water heat exchanger could lead to degradation of the jacket water heat exchanger through SCC and impact the reliability of the A EDG. This finding is associated with the Mitigating Systems Cornerstone and affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The team reviewed this finding using the Phase 1 significance determination process (SDP) Table 4a worksheet in Manual Chapter 0609 for Mitigating Systems and determined that the finding was of very low safety significance (Green), because it was not a design or qualification deficiency confirmed not to result in loss of operability; did not result in a loss of safety function; and did not screen as potentially risk significant due to a seismic, flooding, or a severe weather initiating event.

This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program Component, because Ginna did not take appropriate actions to address the elevated chloride level of the A EDG jacket water system, as documented in CR-2010-002480 (P.1(d) per IMC 0310).

Enforcement. 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. Contrary to the above, after Ginna identified that monthly samples of the A EDG jacket water system were not being taken and analyzed for chlorides and fluorides, a sample was not taken and analyzed for approximately five months. Additionally, after the analysis indicated that the jacket water chlorides were over twice the procedural limit, action was not taken to increase the chloride sampling frequency or to get the chlorides to within specification within 90 days as required by chemistry procedure CH-138, "Closed Cooling Water Systems Chemistry Optimization Plan," Revision 1, when it was identified on April 15, 2010, and an analysis was not completed to evaluate the long term effects on the EDG. Since this finding was determined to be of very low safety significance (Green) and has been entered into Constellation's CAP (CR-2010-002480) it is being treated as a non-cited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy. **(NCV 05000244/2010006-01, Failure to Take Adequate Corrective Actions for Elevated Chlorides in the A EDG Jacket Water Heat Exchanger)**

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.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The team selected a sample of CRs associated with the review of industry operating experience (OE) to determine whether Constellation personnel appropriately evaluated the OE information for applicability to Ginna and had taken appropriate actions, when warranted. The team reviewed CR evaluations of OE documents associated with a sample of NRC generic letters and information notices to ensure that Constellation adequately considered the underlying problems associated with the issues for resolution via their CAP. The team also observed plant activities to determine if industry OE was considered during the performance of routine activities. A list of the documents reviewed is included in the Attachment to this report.

b. Assessment

The team determined that, in general, Constellation appropriately considered industry OE information for applicability, and used the information for corrective and preventive actions to identify and prevent similar issues when appropriate. The team determined that OE was appropriately applied and lessons learned were generally communicated and incorporated into plant operations.

c. Findings

No findings of significance were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The team reviewed a sample of Quality Assurance (QA) audits, including a review of several of the findings from the most recent audit of the CAP, and a variety of self-assessments focused on various plant programs. These reviews were performed to determine if problems identified through these assessments were entered into the CAP, when appropriate, and whether corrective actions were initiated to address identified deficiencies. The effectiveness of the audits and assessments was evaluated by comparing audit and assessment results against self-revealing and NRC-identified observations made during the inspection. A list of documents reviewed is included in the Attachment to this report.

b. Assessment

The team concluded that QA audits and self-assessments were critical, thorough, and effective in identifying issues. The team observed that these audits and self-assessments were completed by personnel knowledgeable in the subject areas and were completed to a sufficient depth to identify issues that were then entered into the CAP for evaluation. Corrective actions associated with the issues were implemented

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commensurate with their safety significance. Constellation managers evaluated the results and initiated appropriate actions to focus on areas identified for improvement.

c. Findings

No findings of significance were identified.

4. Assessment of Safety Conscious Work Environment

a. Inspection Scope

During interviews with station personnel, the team assessed the safety conscious work environment (SCWE) at Ginna. Specifically, the team interviewed personnel to determine whether they were hesitant to raise safety concerns to their management and/or the NRC. The team also interviewed the station ECP coordinator to determine what actions were implemented to ensure employees were aware of the program and its availability with regard to raising concerns. The team reviewed the ECP files to ensure that issues were entered into the CAP when appropriate.

b. Assessment

During interviews, plant staff expressed a willingness to use the CAP to identify plant issues and deficiencies and stated that they were willing to raise safety issues. The team 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 CAP and ECP. Based on these limited interviews, the team concluded that there was no evidence of an unacceptable SCWE and no significant challenges to the free flow of information.

c. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On June 11, 2010, the team presented the inspection results to Mr. John Carlin, Site Vice President, and to other members of the Ginna staff. The team verified that no proprietary information was documented in the report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

J. Carlin	Vice President, Ginna
J. Bowers	Acting General Supervisor, Radiation Protection
E. Palmer Jr	Director Security
M. Ives	Supervisor Security Access & FFD
J. Scalzo	Supervisor Security Operations
D. Dean	Assistant Operations Manager (Shift)
T. Hedges	Emergency Preparedness Manager
E. Larson	Plant General Manager
T. Paglia	Scheduling Manager
S. Snowden	Chemistry Supervisor
J. Sullivan	Manager of Operations
P. Swift	Manager, Nuclear Engineering Services

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000244/2010006-01	NCV	Failure to Take Adequate Corrective Actions for Elevated Chlorides in the A EDG Jacket Water Heat Exchanger
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LIST OF DOCUMENTS REVIEWED

Audits and Self-Assessments

09-3P-G, Quality and Performance Assessment Report, September 1 through December 31, 2009

SA-2010-000006, 2010 Problem Identification and Resolution Focused Self-Assessment

SA-2008-000104, R. E. Ginna Nuclear Safety Culture Assessment, September 2008

SA-2009-000185, Focused Self Assessment on the Control of Radioactive Materials, December 7 through 10, 2009

SA-2009-000247, Ginna QPA Human Performance Snapshot Self Assessment Report 2009

SA-2010-000004, Snapshot Self Assessment of Corrective Actions of CR-2009-002636, On-shift Crew Members Relieved Due to Not Having Appropriate SCBA Prescription Glasses

Condition Reports

2005-005786	2006-000220	2006-004471	2006-004529
2006-004709	2007-001224	2007-002044	2007-002336
2007-002536	2007-003184	2007-003404	2007-004749
2007-004755	2007-005141	2007-007441	2007-007464
2008-000962	2008-002030	2008-005063	2008-005920
2008-006077	2008-006414	2008-006523	2008-006717
2008-007483	2008-007493	2008-007494	2008-007503
2008-007504	2008-007523	2008-007540	2008-007557
2008-007575	2008-007579	2008-007611	2008-007658
2008-007661	2008-007667	2008-007668	2008-007671
2008-007701	2008-007707	2008-007723	2008-007750
2008-007751	2008-007806	2008-007812	2008-008023
2008-008039	2008-008061	2008-008084	2008-008090
2008-008102	2008-008167	2008-008188	2008-008190
2008-008212	2008-008227	2008-008229	2008-008233
2008-008246	2008-008288	2008-008309	2008-008329
2008-008345	2008-008360	2008-008414	2008-008423
2008-008520	2008-008536	2008-008541	2008-008609
2008-008614	2008-008624	2008-008695	2008-008706
2008-008741	2008-008746	2008-008768	2008-008782
2008-008895	2008-008897	2008-008898	2008-008917
2008-008925	2008-008930	2008-008944	2008-008952
2008-009019	2008-009060	2008-009124	2008-009152
2008-009155	2008-009199	2008-009201	2008-009212
2008-009295	2008-009350	2008-009370	2008-009407
2008-009408	2008-009409	2008-009410	2008-009412
2008-009413	2008-009414	2008-009415	2008-009416
2008-009418	2008-009424	2008-009433	2008-009465
2008-009497	2008-009502	2008-009549	2008-009552
2008-009584	2008-009598	2008-009615	2008-009634
2008-009657	2008-009658	2008-009665	2008-009666
2008-009709	2008-009806	2008-009834	2008-009909
2008-009938	2008-009940	2008-009951	2008-009981
2008-009897	2008-009898	2008-009903	2008-010000
2008-010001	2008-010005	2008-010050	2008-010057
2008-010194	2008-010196	2008-010246	2008-010254
2008-010272	2008-010274	2009-000016	2009-000025
2009-000035	2009-000065	2009-000116	2009-000119

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2009-000242	2009-000260	2009-000272	2009-000368
2009-000428	2009-000437	2009-000439	2009-000459
2009-000486	2009-000556	2009-000666	2009-000668
2009-000693	2009-000735	2009-000746	2009-000758
2009-000763	2009-000809	2009-000839	2009-000915
2009-000922	2009-000928	2009-000946	2009-000973
2009-001153	2009-001188	2009-001213	2009-001219
2009-001278	2009-001332	2009-001398	2009-001433
2009-001447	2009-001484	2009-001509	2009-001526
2009-001534	2009-001551	2009-001575	2009-001612
2009-001671	2009-001715	2009-001716	2009-001832
2009-001929	2009-001935	2009-001954	2009-001964
2009-001970	2009-002045	2009-002061	2009-002130
2009-002131	2009-002161	2009-002306	2009-002310
2009-002325	2009-002490	2009-002515	2009-002569
2009-002638	2009-002648	2009-002668	2009-002690
2009-002826	2009-002933	2009-002947	2009-003032
2009-003100	2009-003241	2009-003376	2009-003380
2009-003415	2009-003475	2009-003480	2009-003499
2009-003508	2009-003517	2009-003544	2009-003586
2009-003827	2009-003865	2009-003965	2009-004043
2009-004076	2009-004550	2009-004852	2009-005019
2009-005082	2009-005239	2009-005485	2009-005602
2009-005625	2009-005768	2009-005791	2009-005800
2009-006086	2009-006233	2009-006257	2009-006341
2009-006349	2009-006376	2009-006417	2009-006425
2009-006614	2009-006633	2009-006703	2009-006717
2009-006733	2009-006741	2009-006833	2009-006934
2009-006985	2009-006994	2009-007059	2009-007085
2009-007143	2009-007371	2009-007495	2009-007531
2009-007538	2009-007540	2009-007589	2009-007596
2009-007731	2009-008118	2009-008213	2009-008562
2009-008594	2009-008629	2009-008696	2009-008774
2009-008852	2009-009034	2009-009076	2009-009115
2009-009393	2009-009482	2010-000114	2010-000175
2010-000273	2010-000300	2010-000725	2010-000816
2010-001207	2010-001233	2010-001239	2010-001742
2010-001895	2010-002200	2010-002269	2010-002273
2010-002278	2010-002306	2010-002480	2010-002449
2010-002533	2010-002572	2010-002591	2010-002661
2010-002747	2010-002877	2010-002932	2010-002991
2010-003182	2010-003279	2010-003305	2010-003344*
2010-003350*	2010-003412*	2010-003545*	2010-003640*
2010-003645*	2010-003648	2010-003663*	2010-003664*
2010-003685*	2010-003723*	2010-003724*	

*NRC Identified During Inspection

Corrective Actions

2008-002788	2008-002789	2008-002790	2008-003776
2009-000440	2009-000551	2009-001754	2009-002155
2009-003455	2009-003593		

Operating Experience

OE-2010-000545 100226 - IN10-06 Inadvertent Control Rod Withdrawal Event While Shutdown

OE-2010-000353 100206 - IN10-03 Failures Of Motor-Operated Valves Due To Degraded Stem Lubricant

OE-2010-000598 100304 - IN10-04 Diesel Generator Voltage Regulation System Component Due To Latent Manufacturing Defect

OE-2010-000618 100305 - IN10-01 Pipe Support Anchors Installed Improperly

OE-2010-001019 100414 - IN10-07 Welding Defects In Replacement Steam Generators

OE-2010-001041 100415 - IN10-08 Welding and Nondestructive Examination Issues

Drawings

33013-1239, Diesel Generator – B, sheet 2, Revision 22

Licensee Event Report (LER)

2010-001, Two Fuel Assemblies Identified in Incorrect Spent Fuel Pool Locations Following Database Upgrade

Non-Cited Violations and Findings

FIN 2008010-01, Untimely Corrective Actions Associated With the "C" Instrument Air Compressor

NCV 2008010-02, Inadequate Procedure for Testing Reactor Trip Breakers

NCV 2009003-01, Failure to Meet Technical Specification Requirements for Senior Radiation Protection Technician Qualifications

NCV 2009003-02, Operators Did Not Have Corrective Lens Kits Available to Implement Emergency Plan Requirements

NCV 2009004-02, Failure to Correctly Implement Chemical and Volume Control System Water Transfer Procedure

NCV 2009004-03, Failure to Meet Technical Specifications for Inservice Testing Requirements

NCV 2009005-02, Failure to Correctly Implement Containment Closeout Procedure

Procedures

SA 2010 000006 2010, Problem Identification and Resolution Focused Self Assessment, March 24, 2010

SA-2009-000168, Snapshot Self-Assessment - Evaluate the Effectiveness of the Leadership Development Training on Effective Corrective Actions and Compensatory Measures, July 29, 2009

SA-2009-000143, Snapshot Self-Assessment - Initiator and Supervisor Boxes – Effectiveness of Actions Taken

CNG-CA-1.01-1008, Significant Operating Experience Report (SOER) Process, Revision 00300

CNG-CA-1.01-1003, Performance Improvement Coordinators, Revision 0001

CNG-CA-1.01-1010, Use of Operating Experience, Revision 00200

CNG-CA-1.01-1007, Performance Improvement Program Trending and Analysis, Revision 00100

CNG-CA-1.01, Corrective Action Program, Revision 0001

CNG-CA-1.01-1000, Corrective Action Program, Revision 00200

CNG-CA-1.01-1001, Management Review Committee, Revision 0001

O-6, Operations and Process Monitoring, Revision 10500

O-6.1, Auxiliary Operator Rounds and Log Sheets, Revision 04300

CH-138, Closed Cooling Water Systems Chemistry Optimization Plan, Rev. 00001

RP-JC-JOBCOVERAGE, Job Coverage, Rev. 01500

RP-RES-Q-FIT, Fit Testing of Personnel Using Respirators, Rev. 02100

A-56, Communication Systems at Ginna Station, Rev. 03502

ER-COMM.1, Loss of Communications, Rev. 0

Miscellaneous

Operations Night Orders, Date 9/24/2009, and 1/25/2010

System Health Tile Overview, April 27, 2010

System Health Report, Chemical Volume Control System, 1/1/2010-3/31/2010

LIST OF ACRONYMS

ACE	Apparent Cause Evaluation
ADAMS	Agencywide Documents Access and Management System
CAP	Corrective Action Program
CCW	Component Cooling Water
CFR	Code of Federal Regulations
CR	Condition Report
DRP	Division of Reactor Projects
ECP	Employee Concerns Program
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
GINNA	R.E. Ginna Nuclear Power Plant
HRA	High Radiation Area
IMC	Inspection Manual Chapter
IST	In-Service Test
LER	Licensee Event Report
MDAFW	Motor Driven Auxiliary Feedwater
MRC	Management Review Committee
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
OE	Operating Experience
PARS	Publicly Available Records System
PI&R	Problem Identification and Resolution
PM	Preventive Maintenance
PPM	Parts Per Million
QA	Quality Assurance
RCA	Radiologically Controlled Area
ROP	Reactor Oversight Process
RWP	Radiation Work Permit
SCC	Stress Corrosion Cracking
SCWE	Safety Conscious Work Environment
SDP	Significance Determination Process
SSCs	Structures, Systems and Components
TDAFW	Turbine Driven Auxiliary Feedwater
WO	Work Order