



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
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February 5, 2025

David P. Rhoades
Senior Vice President
Constellation Energy Generation, LLC
President and Chief Nuclear Officer
Constellation Nuclear
4300 Winfield Road
Warrenville, IL 60555

**SUBJECT: R.E. GINNA NUCLEAR POWER PLANT – INTEGRATED INSPECTION
REPORT 05000244/2024004**

Dear David Rhoades:

On December 31, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at R.E. Ginna Nuclear Power Plant. On January 21, 2025, the NRC inspectors discussed the results of this inspection with Daren Blakenship, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. We are treating this violation as a non-cited violation consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violation or the significance or severity of the violation documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, 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, Office of Enforcement; and the NRC Resident Inspector at R.E. Ginna Nuclear Power Plant.

If you disagree with a cross-cutting aspect assignment 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 U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; and the NRC Resident Inspector at R.E. Ginna Nuclear Power Plant.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Jason E. Schussler, Chief
Projects Branch 1
Division of Operating Reactor Safety

Docket No. 05000244
License No. DPR-18

Enclosure:
As stated

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SUBJECT: R.E. GINNA NUCLEAR POWER PLANT – INTEGRATED INSPECTION REPORT 05000244/2024004 DATED FEBRUARY 5, 2025

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 05000244

License Number: DPR-18

Report Number: 05000244/2024004

Enterprise Identifier: I-2024-004-0033

Licensee: Constellation Energy Generation, LLC

Facility: R.E. Ginna Nuclear Power Plant

Location: Ontario, New York

Inspection Dates: October 1, 2024 to December 31, 2024

Inspectors: C. Swisher, Senior Resident Inspector
K. Poolman, Resident Inspector
C. Borman, Health Physicist
L. Cline, Senior Reactor Inspector
J. Demarshall, Senior Operations Engineer
T. Fish, Senior Operations Engineer
N. Floyd, Senior Reactor Inspector
K. Smetana, Reactor Engineer
S. Veunephachan, Senior Health Physicist

Approved By: Jason E. Schussler, Chief
Projects Branch 1
Division of Operating Reactor Safety

Enclosure

SUMMARY

The NRC continued monitoring the licensee's performance by conducting an integrated inspection at R.E. Ginna Nuclear Power Plant, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

Inadequate Maintenance Program for the Standby Auxiliary Feedwater Pump Emergency Switchgear			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000244/2024004-01 Open/Closed	[P.6] - Self-Assessment	71152A
The inspectors identified a Green finding and associated non-cited violation of License Condition 2.C.(3), "Fire Protection," when the licensee failed to include the standby auxiliary feedwater pumps 'C' and 'D' emergency power supply breakers, 52D2 and 52D3, and manual transfer switches, 43/PSF01A and 43/PSF01B, as part of an inspection and testing program as required by licensee procedure ER-AA-610-1003, "National Fire Protection Association (NFPA) 805 Monitoring Program."			

Additional Tracking Items

None.

PLANT STATUS

Ginna began the inspection period offline for refueling outage 1GR45. The unit was synchronized to the grid on October 12, 2024, and was returned to 100 percent rated thermal power on October 18, 2024, and remained at or near rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed activities described in IMC 2515, Appendix D, "Plant Status," observed risk significant activities, and completed on-site portions of IPs. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Seasonal Extreme Weather Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of low temperatures and snow advisories of the following systems on December 3, 2024:
 - Diverse and flexible coping strategies equipment room
 - Screenhouse
 - 'B' emergency diesel generator room
 - Standby auxiliary feedwater annex

71111.04 - Equipment Alignment

Complete Walkdown Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated system configurations during a complete walkdown of the 'B' safety injection accumulator on October 10, 2024

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Reactor containment upper level on October 4, 2024
- (2) Reactor containment middle level on October 4, 2024
- (3) Standby auxiliary feedwater building and annex on October 4, 2024
- (4) Reactor containment lower level on October 7, 2024

71111.06 - Flood Protection Measures

Flooding Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated internal flooding mitigation protections in the 'A' and 'B' battery rooms

71111.08P - Inservice Inspection Activities (PWR)

The inspectors verified that the reactor coolant system boundary, reactor vessel internals, risk significant piping system boundaries, and containment boundary are appropriately monitored for degradation and that repairs and replacements were appropriately fabricated, examined, and accepted by reviewing the following activities during refueling outage G1R45 from October 1 to October 11, 2024.

PWR Inservice Inspection Activities Sample - Nondestructive Examination and Welding Activities (IP Section 03.01) (1 Sample)

The inspectors verified that the following nondestructive examination (NDE) and welding activities were performed appropriately:

- (1)
 - Manual ultrasonic testing of the back-up reactor coolant system charging line downstream of valve 393 in the 'B' loop (NDE Report BOP-UT-2024-018). This examination was performed in accordance with MRP-146, "Management of Thermal Fatigue in Normally Stagnant Non-Isolable Reactor Coolant System Branch Lines."
 - Direct visual examination of the reactor pressure vessel bottom mounted instrumentation penetrations (NDE Report G45-ISI-VT-001). This examination was performed in accordance with ASME Code Case N-722-1, "Additional Examinations for PWR Pressure Retaining Welds in Class 1 Components Fabricated with Alloy 600/82/182 Materials."
 - General visual examinations of the accessible containment surfaces, including the containment dome liner, leak chase caps, and steam generator blowdown penetrations 321 and 322 (NDE Reports G45 CISI-VT-123, -178, -179, and -276).
 - Welding activities associated with the replacement of the service water piping downstream of valve 4758 under work order C93949901. The post-welding NDE included die penetrant testing (NDE Reports BOP-PT-2024-004, -005, and -013) of shop welds W1 to W8 and field welds W9 to W10.

PWR Inservice Inspection Activities Sample - Boric Acid Corrosion Control Inspection Activities (IP Section 03.03) (1 Sample)

The inspectors verified the licensee is managing the boric acid corrosion control program through a review of the following evaluations:

- (1)
 - Inspectors performed direct observations inside the containment building on October 2, 2024
 - Boric Acid Evaluation for valve 308A, chemical volume control system (Action Request (AR) 04805613)
 - Boric Acid Evaluation for valve 701, residual heat removal system (AR 04805872)
 - Boric Acid Evaluation for valve 12196B, chemical volume control system (AR 04805742)
 - Boric Acid Evaluation for valve 839A, safety injection system (AR 04805651)

71111.11A - Licensed Operator Requalification Program and Licensed Operator Performance

Requalification Examination Results (IP Section 03.03) (1 Sample)

- (1) The inspectors reviewed and evaluated the licensed operator examination failure rates for the requalification annual operating exams administered October - November 2024.

71111.11B - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Requalification Program (IP Section 03.04) (1 Sample)

- (1) Biennial Requalification Written Examinations

The inspectors evaluated the quality of the licensed operator biennial requalification written examinations administered January - February 2023.

Annual Requalification Operating Tests

The inspectors evaluated the adequacy of the facility licensee's annual requalification operating tests administered the week of November 18, 2024.

Administration of an Annual Requalification Operating Test

The inspectors evaluated the effectiveness of the facility licensee in administering requalification operating tests required by 10 CFR 55.59(a)(2) and that the facility licensee is effectively evaluating their licensed operators for mastery of training objectives.

Requalification Examination Security

The inspectors evaluated the ability of the facility licensee to safeguard examination material, such that the examination is not compromised.

Remedial Training and Re-examinations

The inspectors evaluated the effectiveness of remedial training conducted by the licensee, and reviewed the adequacy of re-examinations for licensed operators who did not pass a required requalification examination.

Operator License Conditions

The inspectors evaluated the licensee's program for ensuring that licensed operators meet the conditions of their licenses.

Control Room Simulator

The inspectors evaluated the adequacy of the facility licensee's control room simulator in modeling the actual plant, and for meeting the requirements contained in 10 CFR 55.46.

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the main control room during performance of low power physics testing on October 15, 2024.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the simulator during an annual exam on November 5, 2024.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (4 Samples)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components (SSCs) remain capable of performing their intended function:

- (1) 'B' motor driven auxiliary feedwater pump flow transmitter failing channel check on October 23, 2024
- (2) Air operated valve 294 charging valve to loop 'B' cold leg on November 12, 2024
- (3) Motor operated valve 860D discharge isolation valve for 'B' containment spray pump on December 9, 2024
- (4) Safety injection output relay SI-17X to motor operated valve 4663, service water isolation valve to control room chillers on December 12, 2024

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

- (1) Control of the critical spare service water motor when a nonconforming part was received from the vendor on December 20, 2024

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (6 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) Evaluation of plant risk (Shutdown Green) during Protection Phase 1 of the refueling outage during plant cooldown on October 1, 2024
- (2) Evaluation of plant risk (Shutdown Yellow) during Protection Phase 2 of the refueling outage with solid plant operations on October 1, 2024
- (3) Evaluation of plant risk (Shutdown Yellow) during Protection Phase 3 of the refueling outage with reduced inventory plant operations on October 3, 2024
- (4) Evaluation of plant risk (Shutdown Green) during Protection Phase 4 of the refueling outage with reactor cavity filled to greater than 23 feet on October 4, 2024
- (5) Evaluation of plant risk (Shutdown Yellow) during Protection Phase 5 of the refueling outage with reduced inventory plant operations on October 9, 2024
- (6) Evaluation of plant risk (Shutdown Yellow) during Protection Phase 7 of the refueling outage with the pressurizer solid on October 11, 2024

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (3 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) Functionality assessment of air operated valve 294 after the valve failed to stroke close during surveillance testing on November 5, 2024
- (2) Operability assessment of motor operated valve 4663 after the valve failed to stroke close during safety injection functional testing on November 18, 2024
- (3) Operability assessment of the microprocessor rod position indication system after card replacement due to repeated malfunctions on November 18, 2024

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) ECP-23-000154, load reject circuitry time delay on October 21, 2024

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated the following 1GR45 refueling outage activities:
 - Turbine overspeed trip testing and reactor shutdown on October 1, 2024
 - Lowered reactor coolant system inventory on October 4, 2024
 - Full power reached October 18, 2024

71111.24 - Testing and Maintenance of Equipment Important to Risk

The inspectors evaluated the following testing and maintenance activities to verify system operability and/or functionality:

Post-Maintenance Testing (IP Section 03.01) (6 Samples)

- (1) Operational testing of the residual heat removal system motor operated valve for 'A' loop hot leg suction on October 3, 2024
- (2) Operational testing of the motor operated valve for the auxiliary building service water isolation after diagnostic testing on October 7, 2024
- (3) Operational testing of the 'A' auxiliary feedwater discharge block valve after valve disassembly and reassembly on October 8, 2024
- (4) Operational testing of the pressurizer power operated relief valve (PORV-430) after calibration and valve diagnostics on October 9, 2024
- (5) Operational testing of the pressurizer power operated relief valve (PORV-431) after calibration and valve diagnostics on October 9, 2024
- (6) Operational testing of the microprocessor rod position indication system after screen repair on October 12, 2024

Surveillance Testing (IP Section 03.01) (3 Samples)

- (1) STP-O-R-2.1-TR-A, "Safety Injection Functional Test - Train A," on October 2, 2024
- (2) STP-O-2.10.2, "RHR System Check Valve Full and Partial Flow Test," on October 3, 2024
- (3) STP-O-6.2, "NIS Intermediate Range Channels N-35 and N-36," on October 14, 2024

Containment Isolation Valve Testing (IP Section 03.01) (1 Sample)

- (1) STP-O-22.2, "Local Leak Rate Test of Personnel Hatch Door Seal," on September 25, 2024

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated how the licensee identifies the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how the licensee assesses radiological hazards.

Instructions to Workers (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated how the licensee instructs workers on plant-related radiological hazards and the radiation protection requirements intended to protect workers from those hazards.

Contamination and Radioactive Material Control (IP Section 03.03) (2 Samples)

The inspectors observed/evaluated the following licensee processes for monitoring and controlling contamination and radioactive material:

- (1) Workers exiting the radiological control area at Unit 1 during a refueling outage
- (2) Licensee surveys of potentially contaminated material leaving the radiological control area

Radiological Hazards Control and Work Coverage (IP Section 03.04) (4 Samples)

The inspectors evaluated the licensee's control of radiological hazards for the following radiological work:

- (1) Reactor head upper internals lifting and placement
- (2) Reactor cavity drain down and decontamination
- (3) Reactor head nondestructive examination flange scan
- (4) 'B' sump closeout in containment basement

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (3 Samples)

The inspectors evaluated licensee controls of the following high radiation areas and very high radiation areas:

- (1) Locked high radiation area Unit 1 reactor coolant filter room in auxiliary building intermediate level
- (2) Locked high radiation area spent resin storage tank room in auxiliary building basement level
- (3) Locked high radiation area regenerative heat exchanger in containment basement level

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 03.06) (1 Sample)

- (1) The inspectors evaluated radiation worker and radiation protection technician performance as it pertains to radiation protection requirements.

71124.03 – In-Plant Airborne Radioactivity Control and Mitigation

Permanent Ventilation Systems (IP Section 03.01) (1 Sample)

The inspectors evaluated the configuration of the following permanently installed ventilation systems:

- (1) Containment ventilation system

Temporary Ventilation Systems (IP Section 03.02) (1 Sample)

The inspectors evaluated the configuration of the following temporary ventilation systems:

- (1) Seal table work inside containment during refueling outage

Use of Respiratory Protection Devices (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated the licensee's use of respiratory protection devices.

Self-Contained Breathing Apparatus for Emergency Use (IP Section 03.04) (1 Sample)

- (1) The inspectors evaluated the licensee's use and maintenance of self-contained breathing apparatuses.

71124.04 - Occupational Dose Assessment

Source Term Characterization (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated licensee performance as it pertains to radioactive source term characterization.

External Dosimetry (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated how the licensee processes, stores, and uses external dosimetry.

Internal Dosimetry (IP Section 03.03) (2 Samples)

The inspectors evaluated the following internal dose assessments:

- (1) Dose assessment and whole body counts of worker contaminated from work on the primary steam generator platforms (WBC Log #23-050)
- (2) Dose assessment and whole body counts of worker contaminated from work on the primary steam generator platforms (WBC Log #23-055)

Special Dosimetric Situations (IP Section 03.04) (2 Samples)

The inspectors evaluated the following special dosimetric situations:

- (1) Declared pregnant workers program and assessments
- (2) Neutron dosimetry program and assessment

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (1 Sample)

- (1) For the period October 1, 2023 through September 30, 2024

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual
Radiological Effluent Occurrences Sample (IP Section 02.16) (1 Sample)

- (1) For the period October 1, 2023 through September 30, 2024

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 03.03) (3 Samples)

The inspectors reviewed the licensee’s implementation of its corrective action program related to the following issues:

- (1) Work group evaluation and corrective actions associated with increased tailpipe temperature downstream of pressurizer power operated relief valves 430 & 431C (AR 04703791) on October 25, 2024
- (2) Maintenance and testing strategies of diesel generators KDG08 & KDG09 (AR 04424750) on October 31, 2024
- (3) Corrective action program documents regarding the incorporation of vendor guidance into procedure ER-Fire 1, "Alternate Shutdown for Control Room Abandonment," (AR 04758245) on November 25, 2024

71152S – Semi-Annual Trend Problem Identification and Resolution

Semi-Annual Trend Review (IP Section 03.02) (1 Sample)

- (1) The inspectors reviewed the licensee's corrective action program for potential emerging or adverse trends that might be indicative of a more significant safety issue on December 20, 2024

INSPECTION RESULTS

Inadequate Maintenance Program for the Standby Auxiliary Feedwater Pump Emergency Switchgear			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000244/2024004-01 Open/Closed	[P.6] - Self-Assessment	71152A
The inspectors identified a Green finding and associated non-cited violation of License Condition 2.C.(3), “Fire Protection,” when the licensee failed to include the standby auxiliary			

feedwater pumps 'C' and 'D' emergency power supply breakers, 52D2 and 52D3, and manual transfer switches, 43/PSF01A and 43/PSF01B, as part of an inspection and testing program as required by licensee procedure ER-AA-610-1003, "National Fire Protection Association (NFPA) 805 Monitoring Program."

Description: NFPA 805, Section 2.6 requires that a monitoring program be established to ensure that the availability and reliability of fire protection systems and features are maintained and to assess the performance of the fire protection program in meeting the NFPA 805 performance criteria. The intent of the program is to ensure that the assumptions in the engineering analysis, including the safe shutdown analysis, remain valid.

ER-AA-610-1003, "NFPA Monitoring Program," Section 4.2 states that equipment credited for compliance with the approved fire protection program, including nuclear safety equipment/safe shutdown SSCs and fire probable risk assessment SSCs, are scoped into the monitoring program, and Section 4.3 requires that as a minimum, SSCs scoped under Section 4.2 should be part of an inspection and testing program.

As part of the transition to NFPA 805 compliance, based on the results of the safe shutdown analysis, Ginna installed two independent alternate sources of power to the site's motor driven standby auxiliary feedwater pumps. The new alternate power system, installed via ECP-13-000484 and ECP-12-000459, included: two one-megawatt diesel generators, associated engine controllers, emergency generator paralleling switchgear, an automatic transfer switch (normal and emergency), output breakers for each diesel generator, and associated electrical distribution panels, and motor control centers that included emergency power supply breakers, and a manual transfer switch for each of two standby auxiliary feedwater pumps 'C' and 'D' (ECP-12-000459, Rev. 1, pg. 1-3).

The inspectors determined that the alternate power system equipment installed via these modification packages was credited for compliance with the approved NFPA 805 fire protection program as safe shutdown SSCs and fire probable risk assessment SSCs and in accordance with ER-AA-1003 were included in the scope of the NFPA 805 monitoring program. Therefore, according to the program, the components associated with this system should be included as part of an inspection and testing program.

The inspectors reviewed the maintenance and testing activities performed on the components supporting the alternate standby auxiliary feedwater pump power supplies and determined that the program did not include adequate maintenance or testing activities for the standby auxiliary feedwater pumps 'C' and 'D' emergency power supply breakers, 52D2 and 52D3, and the manual transfer switches, 43/PSF01A and 43/PSF01B. Specifically, the licensee had no planned maintenance or testing scheduled for the manual transfer switches and for the emergency power supply breakers the licensee only verified breaker setpoint data as part of the switchgear enclosure clean and inspect preventative maintenance scheduled every six years.

The inspectors determined that licensee procedure CC-AA-118, "Diverse and Flexible Coping Strategies (FLEX), Spent Fuel Pool Instrumentation, and Hardened Containment Vent System (HCVS) Program Document," and the fleet preventative maintenance templates for breaker and switch maintenance would apply to the standby auxiliary feedwater pump alternate power system equipment. Attachment 3 of CC-AA-118 incorporated guidance from EPRI 2013 Technical Report 3002000623, "Nuclear Maintenance Applications Center: Preventative Maintenance Basis for FLEX Equipment," to determine the most effective maintenance and testing strategy for low duty cycle equipment. For the breakers, the

applicable guidance recommended verifying breaker trip settings, breaker cycling with lubrication, and a breaker clean and inspect on a 10-year frequency. For the manual transfer switches, a clean and inspect and switch cycling was recommended on a 12-year frequency.

Both the emergency power supply breakers and the manual transfer switches were satisfactorily tested during post-installation testing in 2014. As of the date of this inspection, because the recommended test frequency for these low duty cycle components was as long as every 12.5 years (10 years + 25% grace), the installed equipment remained within the recommended maintenance interval. Therefore, the inspectors concluded that the lack of an adequate testing or maintenance program for the breakers and switches was not expected to adversely impact current equipment performance. However, because the licensee's test and maintenance plan for the breakers and the manual transfer switches did not include appropriate recommended maintenance activities, the inspectors determined that the equipment was not part of an adequate test and maintenance program and was not adequately monitored and maintained in accordance with the requirements of the NFPA 805 monitoring program.

ER-AA-610-1003 requires that a self-assessment of the NFPA 805 monitoring program be performed at a frequency of approximately three years. The last self-assessment of the NFPA monitoring program was performed in early 2024. In accordance with the procedure these periodic assessments, in part, review systems with performance criteria to confirm that the criteria continue to effectively monitor system functions. The failure to test and maintain the alternate standby auxiliary feedwater pump power supply breakers and switches adversely affected the ability of the monitoring program to effectively monitor the availability and reliability of the standby auxiliary feedwater pump decay heat removal function. A self-critical and objective assessment should have identified this performance deficiency.

Corrective Actions: The licensee entered the performance deficiency into the corrective action program and is evaluating the next best available opportunity to perform the applicable maintenance and testing activities for the associated breakers and the manual transfer switches.

Corrective Action References: ARs 04815321 and 04816222

Performance Assessment:

Performance Deficiency: Constellation did not include the standby auxiliary feedwater pumps 'C' and 'D' emergency power supply breakers, 52D2 and 52D3, and the manual transfer switches, 43/PSF01A and 43PSF01B, in an inspection and testing program that ensured this equipment's availability and reliability, as required by ER-AA-610-1003, "NFPA Monitoring Program." The inspectors determined this was a performance deficiency within Constellation's ability to foresee and correct that should have been prevented.

Screening: The inspectors determined the performance deficiency was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. Not performing regular preventative maintenance or testing on the standby auxiliary feedwater pumps 'C' and 'D' emergency power supply breakers and the manual transfer switches would ultimately adversely affect the availability and reliability of this safe shutdown equipment and the ability of the licensee to meet NFPA 805 performance criteria.

Significance: The inspectors assessed the significance of the finding using IMC 0609, Appendix F, "Fire Protection and Post - Fire Safe Shutdown SDP." The inspectors assigned this finding to the "Post-fire Safe Shutdown" category, in accordance with Table 1.2.1, "Finding Categories" of IMC 0609, Appendix F. In step 1.3.1-A, the inspectors could not assign a low degradation rating when compared with the "Post-Fire Safe Shutdown" category examples provided in IMC 0609, Appendix F, Attachment 2. This issue screened to very low safety significance (Green) in Phase 1, step 1.4.7-C because the fire finding did not adversely affect the ability to reach and maintain safe and stable conditions using the credited safe shutdown success path. Both the emergency power supply breakers and the manual transfer switches were satisfactorily tested during post-installation testing in 2014. Therefore, because the recommended test frequency for both these items based on engineering judgement was 10 years; the lack of an adequate testing or maintenance program for the breakers and switches would not be expected to result in an adverse impact as of this date.

Cross-Cutting Aspect: P.6 - Self-Assessment: The organization routinely conducts self-critical and objective assessments of its programs and practices. ER-AA-610-1003 requires that a self-assessment of the NFPA 805 monitoring program be performed at a frequency of approximately three years. The inspectors determined that because the failure to test or maintain the associated breakers and switches impacted the ability of the monitoring program to effectively monitor the availability and reliability of the standby auxiliary feedwater pump decay heat removal function these periodic self-assessments should have identified this performance deficiency.

Enforcement:

Violation: Ginna License Condition 2.C.(3), "Fire Protection," requires that Constellation shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and (c) as specified in the licensee's amendment request dated March 28, 2013, and all applicable supplemental letters, and as approved in the safety evaluation reports dated November 23, 2015, and June 25, 2018. The amendment adopted a risk informed, performance-based fire protection licensing basis that complies with guidance in NFPA 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition.

NFPA 805, Section 2.6 requires that a monitoring program be established to ensure that the availability and reliability of fire protection systems and features are maintained and to assess the performance of the fire protection program in meeting performance criteria. Monitoring shall ensure that the assumptions in the engineering analysis remain valid. Constellation procedure ER-AA-610-1003 describes the requirements of the Ginna NFPA 805 monitoring program per NFPA 805, Section 2.6. ER-AA-610-1003, Section 4.2 states that equipment credited for compliance with the approved fire protection program, including nuclear safety equipment/safe shutdown SSCs and fire probability risk assessment SSCs, are scoped into the monitoring program, and Section 4.3 requires that SSCs scoped under Section 4.2 should be part of an inspection and testing program.

Contrary to this requirement, as of November 23, 2015, and ongoing at the time of the exit meeting, standby auxiliary feedwater pumps 'C' and 'D' emergency power supply breakers 52D2 and 52D3 and manual transfer switches 43/PSF01A and 43/PSF01B, that are scoped into the Constellation NFPA 805 monitoring program, were not part of an adequate inspection and testing program that ensured the availability and reliability of these components is maintained.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Observation: Evaluation of Corrective Actions for a Missed National Fire Protection Association (NFPA) 805 Monitoring Program Self-assessment and a Review of Maintenance for the Standby Auxiliary Feedwater and NFPA 805 Diesel Generators and Switchgear	71152A
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The inspectors reviewed Constellation's corrective actions for the following NRC-identified fire protection program related issue reports:

- AR 04424750 (May 2021) - For the standby auxiliary feedwater and NFPA 805 diesel generators (KDG08 and KDG09) and the associated switchgear, the manual loading function of the busses fed by these diesels (i.e. manual local breaker closure onto the bus) was not tested by STP-O-40.5, "NFPA Diesel Generator (KDG09) Run Test," and STP-O-40.6, "SAFW and NFPA Diesel Generators (KDG08/KDG09) Pre-Startup Alignment"
- AR 04758247 (March 2024) - Last periodic monitoring plan self-assessment missed (approximately three years)

The inspectors reviewed Constellation's completed corrective actions for each AR, the scope and requirements of the Ginna NFPA 805 monitoring program as it applies to the standby auxiliary feedwater and NFPA 805 diesel generators and switch gear, and the most recent monitoring plan self-assessment completed in May 2024.

The inspectors determined that the corrective actions completed to address the issues associated with each AR were adequate and timely. However, the inspectors identified a Green finding and associated non-cited violation associated with the site's implementation of its NFPA 805 monitoring program.

Observation: Evaluation of Corrective Action Program Documents Regarding the Incorporation of Vendor Guidance into Procedure ER-Fire 1	71152A
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The inspectors performed a review of Constellation's evaluation and corrective actions in response to an NRC inquiry pertaining to feeding a hot, dry steam generator during accident conditions with cold feedwater as documented in AR 04758245. Specifically, ER-Fire 1, "Alternate Shutdown for Control Room Abandonment," does not have steps limiting feedwater flow rates during accident conditions similar to those found in Emergency Operating Procedures ATT-22.0, "Attachment Restoring Feed Flow."

Constellation staff drafted enhancements to ER-Fire 1 that would direct the operator to reference ATT-22.0. Constellation chose not to incorporate those changes to feedwater flow rates to match the vendor provided procedure. Instead, the licensee cited Babcock & Wilcox (BWC) analysis 222-7705-LR-02, "Safety Evaluation 1133," and BWC-143O-B12, which collectively states, in part, the structural integrity of systems will not be challenged for up to 10 occurrences of feeding a dry steam generator.

The inspectors reviewed the corrective action program products and did not identify any violations or performance deficiencies.

Observation: Indications of Leakby for Power Operated Relief Valves 430 and 431C	71152A
<p>Following a reactor trip on September 9, 2023, both power operated relief valves, 430 and 431C, located on the pressurizer actuated. Constellation noted that tailpipe temperature indicated there was leakby of at least one of the power operated relief valves. Constellation closed the manual block valve for 430, thus isolating it from the pressurizer, and noted a decrease in tailpipe temperature. On September 20, 2023, heightened tailpipe temperature and increased pressurizer relief tank level indicated that leakby was still occurring. A second reactor trip occurred on October 12, 2023, and the unisolated power operated relief valve 431C actuated following the transient. On October 28, 2023, Constellation decided to unisolate valve 430, and instead close the manual block valve to isolate valve 431C. After making this change, tailpipe temperatures and pressurizer relief tank level stabilized for the remainder of the operating cycle.</p> <p>Constellation documented this condition adverse to quality in their corrective action program as AR 04703791 and performed a work group evaluation to discover the cause of the leakby. Constellation determined the most likely cause was inadequate margin of closure stroke force, the force the actuator needs to reseal the valve and achieve adequate sealing. During the refueling outage in October 2024, the valves were removed and refurbished, and the closure stroke margin was increased for both the valves.</p> <p>The inspectors reviewed the corrective action program products and did not identify any violations or performance deficiencies.</p>	

Observation: Semi-Annual Trend Review	71152S
<p>The inspectors reviewed Constellation’s corrective action program and evaluated a sample of issues and events that occurred from July 2024 through December 2024 at Ginna. The inspectors then verified whether the issues were appropriately evaluated by Constellation for emerging or adverse trends and addressed within the scope of the corrective action program or through department review.</p> <p>The inspection did not reveal any new trends that could indicate a more significant safety issue. The inspectors determined that Constellation personnel were identifying trend issues at a low threshold and entered them into the corrective action program for resolution. The inspectors noted low level or precursor trends identified by Constellation relating to equipment performance trends and material condition precursors.</p> <p>Based on the overall results of the semi-annual trend review, the inspectors determined that Constellation had properly identified adverse trends at Ginna before they became more significant safety problems. The inspectors reviewed the corrective action program products and did not identify any violations or performance deficiencies.</p>	

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On October 10, 2024, the inspectors presented the radiological hazard assessment and exposure controls inspection results to Caroline Holshouser, Radiation Protection Manager, and other members of the licensee staff.

- On October 11, 2024, the inspectors presented the inservice inspection results to Daren Blankenship, Site Vice President, and other members of the licensee staff.
- On November 21, 2024, the inspectors presented the airborne radioactivity, occupational dose, and performance indicator verification inspection results to Richard Everett, Plant Manager, and other members of the licensee staff.
- On January 21, 2025, the inspectors presented the integrated inspection results to Daren Blankenship, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.08P	Miscellaneous	ER-GI-330-1001	R.E. Ginna Inservice Inspection Program Plan for the Sixth Ten-Year Inspection Interval	Revision 1
		ER-GI-330-1004	R.E. Ginna Risk Informed Inservice Inspection Program Report	Revision 0
71152A	Calculations	222-7705-LR-02	Stress Analysis of Tubesheet Assembly for additional level D Service Conditions	01/25/1996
		BWC-1430-SR-1	Qualification Report for Power Uprate Operation with Core Power of 1811 MWt	05/27/2005
		DA-ME-2003-034	Valve 430 AOV Program Design Basis Review Calculation	Revisions 1 and 2
	Corrective Action Documents	04703791		
	Corrective Action Documents Resulting from Inspection	0411742 0411827		
	Engineering Evaluations	SEV-1133	Minimum Auxiliary Feedwater Temperature of 32F	04/17/1999
	Work Orders	C93942784 C93942942		