UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE RD, STE 102
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

July 24, 2025

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

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000352/2025002 AND 05000353/2025002

Dear David Rhoades:

On June 30, 2025, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Limerick Generating Station, Units 1 and 2. On July 21, 2025, the NRC inspectors discussed the results of this inspection with Christopher Giambrone, Work Management Director and Acting Plant Manager, 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 (NCV) 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 Limerick Generating Station, Units 1 and 2.

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 Limerick Generating Station, Units 1 and 2.

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* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

NICOLE WARNEK

Digitally signed by NICOLE WARNEK
Date: 2025.07.24 10:51:49 -04'00'

Nicole S. Warnek, Chief
Projects Branch 3
Division of Operating Reactor Safety

Docket Nos. 05000352 and 05000353
License Nos. NPF-39 and NPF-85

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000352/2025002 AND 05000353/2025002 DATED JULY 24, 2025

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000352 and 05000353
License Numbers:	NPF-39 and NPF-85
Report Numbers:	05000352/2025002 and 05000353/2025002
Enterprise Identifier:	I-2025-002-0039
Licensee:	Constellation Energy Generation, LLC
Facility:	Limerick Generating Station, Units 1 and 2
Location:	Sanatoga, PA 19464
Inspection Dates:	April 1, 2025 to June 30, 2025
Inspectors:	A. Ziedonis, Senior Resident Inspector L. Grimes, Resident Inspector B. Edwards, Health Physicist J. Kulp, Senior Reactor Inspector
Approved By:	Nicole S. Warnek, Chief Projects Branch 3 Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Limerick Generating Station, Units 1 and 2, 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

Standby Gas Treatment System 'B' Train High Efficiency Particulate Air Filters Exceeded Maximum Allowable Technical Specification Bypass Leakage			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Barrier Integrity	Green NCV 05000352,05000353/2025002-01 Open/Closed	[P.3] - Resolution	71152A
A self-revealed Green finding and associated non-cited violation (NCV) of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix B, Criterion XVI, "Correction Action," was identified when Constellation did not promptly correct a condition adverse to quality (CAQ) associated with the 'B' train of the standby gas treatment system (SGTS) that resulted in unplanned inoperability and emergent unavailability. Specifically, Constellation documented a deficiency associated with the 'B' SGTS high efficiency particulate air (HEPA) filters following surveillance testing in March of 2020, and did not promptly correct the condition, which resulted in exceeding technical specification (TS) acceptance criteria during performance of the next surveillance test in February 2025.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000353/2025-001-00	LER 2025-001-00 for Limerick Generating Station, Unit 2, HPCI Valve Isolated during a Surveillance Test due to a Degraded Test Connector	71153	Closed
LER	05000352/2025-001-00	LER 2025-001-00 for Limerick Generating Station, Unit 1, Bypass Leakage on the B Train of Standby Gas Treatment System HEPA Filters Exceed Technical Specification Value	71153	Closed

PLANT STATUS

Unit 1 began the inspection period at rated thermal power (RTP). On April 11, 2025, operators lowered thermal power to approximately 70 percent for a rod pattern adjustment and planned testing and maintenance activities. The unit was restored to RTP on April 12, 2025, and remained at or near RTP for the remainder of the inspection period.

Unit 2 began the inspection period at approximately 92 percent RTP in end-of-cycle coastdown status. On April 28, 2025, the unit was shut down for a planned refueling and maintenance outage (2R18). The unit was returned to RTP on May 19, 2025. On May 29, 2025, operators lowered power to approximately 70 percent, to perform a rod pattern adjustment and steam leak repair on the 'B' steam jet air ejector. The unit was returned to RTP on May 30, 2025, and remained at or near RTP 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 the adequacy of the overall preparations to protect risk-significant systems from seasonal extreme hot weather during the weeks of June 16 and June 23, 2025.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (2 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

(1) Unit 1, high-pressure coolant injection system on May 21, 2025
(2) Unit 1, 'B' train reactor protection system electrical power configuration during loss of power to the 'A' train on June 13, 2025

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (5 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) Unit 1, F-A-436, class 1E battery room, fire area 9, on April 23, 2025
(2) Units 1, and 2, F-A-542, auxiliary equipment room, fire area 25, following alarm actuation, on May 29, 2025
(3) Unit 2, F-R-475, control rod drive and neutron monitoring area rooms 475, 476, 477, and 479, fire area 68, on June 2, 2025
(4) Unit 1, F-D-311-B, D12 diesel generator room and fuel oil and lube oil tank room, rooms 311B and 312B, fire area 81, on June 2, 2025
(5) Units 1 and 2, F-A-449, cable spreading room, fire area 22, on June 16, 2025

71111.06 - Flood Protection Measures

Flooding Sample (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated internal flooding in the Unit 1 residual heat removal pump room to understand past functionality impacts of a pipe flaw during the week of April 21, 2025.

71111.08G - Inservice Inspection Activities (BWR)

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

The inspectors evaluated boiling water reactor non-destructive testing by reviewing the following examinations from April 29–30, 2025. Limerick Generating Station Unit 2 refueling outage 2R18 was a "Skip Inservice Inspection" outage with a limited examination scope. No American Society of Mechanical Engineers Section XI volumetric examinations were scheduled. The inspectors observed a sample of visual examinations performed under American Society of Mechanical Engineers Section XI, Subsection IWL, "Requirements for Class CC Concrete Components of Light-Water-Cooled Plants."

(1) Unit 2, visual test general examinations of suppression pool structural concrete in the reactor building during the week of April 28, 2025

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 the following activities associated with Unit 2 refueling and maintenance outage 2R18: planned turbine trip and reactor scram on April 28, 2025, reactor cooldown on April 29, 2025, and reactor startup and heat-up on May 16, 2025.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (2 Samples)

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

(1) Unit 2, emergency service water motor operated valve outlet from emergency diesel generator, HV-011-232C, in response to a failure to open during the weeks of May 5 and May 12, 2025
(2) Units 1 and 2, standby gas treatment system during the weeks of June 1 and June 8, 2025

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (4 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) Unit 2, emergent work control in response to the identification of fuel channel markings on fuel assembly GGM868 during the weeks of April 28 and May 5, 2025
(2) Unit 2, emergent work control in response to leaks on the 'A' recirculation pump motor adjustable speed drive on May 3, 2025
(3) Unit 2, emergent work control in response to loss of foreign material event following identification of fuel handling tool with missing clip on May 5, 2025
(4) Unit 2, elevated shutdown safety risk during reactor vessel cavity drain-down on May 12, 2025

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (7 Samples)

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

(1) Unit 2, reactor core isolation cooling (RCIC) system following discovery of an out-of-tolerance condition associated with the electronic governor module during the weeks of April 1 and April 7, 2025
(2) Unit 1, bypass valves following digital electronic hydraulic control module failure during the week of April 7, 2025
(3) Units 1 and 2, emergency core cooling test box test control and maintenance during the week of April 14, 2025
(4) Unit 1, division II batteries following the identification of corrosion on cell 5 during the week of April 14, 2025
(5) Unit 2, technical evaluation in response to General Electric safety communication 25-03 involving direct-current undervoltage relays during the week of April 14, 2025
(6) Unit 2, low pressure coolant injection valve HV-051-2F017A past operability, following local leak-rate test testing results on May 1, 2025

(7) Unit 2, reactor pressure vessel reference leg instrumentation following the identification of flow indication outside of band on May 27, 2025

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

(1) Unit 2, safety relief valve modifications to change the main seat material and install additional monitoring instrumentation during the weeks of April 28 and May 5, 2025
(2) Unit 2, steam seal exhauster temporary leak repair during the week of May 12, 2025

71111.20 - Refueling and Other Outage Activities

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

(1) The inspectors evaluated Unit 2 refueling and maintenance outage (2R18) activities from April 28 through May 17, 2025.

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 (PMT) (IP Section 03.01) (8 Samples)

(1) Units 1 and 2, 'B' main control room chiller during the week of April 1, 2025
(2) Unit 2, RCIC system tuning run following electronic governor module calibration during the weeks of April 1 and April 7, 2025
(3) Unit 2, low-pressure coolant injection valve HV-051-2F017A following in-body repairs during the weeks of April 28 and May 5, 2025
(4) Unit 2, shutdown cooling suction outboard motor-operated valve HV-051-2F008 during the week of May 5, 2025
(5) Unit 2, 'A' source range monitor following repairs during the week of May 5, 2025
(6) Unit 2, reactor pressure vessel pressure test following refueling outage 2R18 maintenance activities on May 14, 2025
(7) Unit 2, RCIC system low pressure surveillance test following refueling outage 2R18 maintenance activities on May 16, 2025
(8) Unit 1, 'D13' emergency diesel generator following 4-year planned system maintenance on June 20, 2025

Surveillance Testing (IP Section 03.01) (4 Samples)

(1) Unit 2, ST-6-046-200-0, "'B' Scram Discharge Volume Exercise Test," during the week of April 1, 2025
(2) Unit 1, ST-6-052-802-1, "Division 2 Core Spray System Response Time Test," during the week of April 7, 2025
(3) Unit 1, ST-2-051-106-1, "Division II Residual Heat Removal Logic System Functional Test," during the weeks of April 7 and April 14, 2025

(4) Unit 2, ST-6-041-202-2, "Main Steam Isolation Valve Cold Shutdown Valve Test," on April 28, 2025

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

(1) Unit 2, ST-4-LLR-031/041/051/061-2, "Main Steam Line A/B/C/D," during the week of April 28, 2025

71114.06 - Drill Evaluation

Additional Drill and/or Training Evolution (1 Sample)

The inspectors evaluated:

(1) The inspectors observed and evaluated the adequacy of an emergency preparedness focused drill (Technical Support Center only, with credited drill and exercise performance evaluation criteria) on June 17, 2025.

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, identifies the concentrations and quantities of radioactive materials, and 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 radiologically controlled area at Unit 2 during a refueling outage
(2) Unit 2 in-core probe torque testing

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) Unit 2 refuel floor activities
(2) Installation and removal of large air conditional trunk in Unit 2 under vessel
(3) Unit 2 drywell closeout walkdown
(4) Unit 2 moisture separator equipment monitoring prior to removal

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) Unit 2 drywell entry and exits
(2) High radiation area and locked high radiation area key storage and log
(3) Unit 2 reactor cavity drain-down and decontamination

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.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (2 Samples)

(1) Unit 1 for the period of April 1, 2024 through March 31, 2025
(2) Unit 2 for the period of April 1, 2024 through March 31, 2025

MS06: Emergency AC Power Systems (IP Section 02.05) (2 Samples)

(1) Unit 1 for the period of April 1, 2024 through March 31, 2025
(2) Unit 2 for the period of April 1, 2024 through March 31, 2025

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (1 Sample)

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

(1) The inspectors reviewed Constellation's work group evaluation 4838741-17 in response to the 'B' SGTS charcoal filter and HEPA filter bypass leakage unsatisfactory performance during surveillance testing.

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

(1) The inspectors reviewed the licensee’s corrective action plan for potential adverse trends that might be indicative of a more significant safety issue.

71153 - Follow Up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (2 Samples)

The inspectors evaluated the following licensee event reports (LERs):

(1) LER 352-2025-001-00, "Bypass Leakage on the 'B' Train of Standby Gas Treatment System HEPA Filters Exceeded Technical Specification Value" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25111A262). The inspection conclusions associated with this LER are documented in this report under Inspection Results Section 71152A. This LER is closed.

(2) LER 353-2025-001-00, "High Pressure Coolant Injection Valve Isolated During a Surveillance Test due to a Degraded Test Connector" (ML25122A139). The inspectors determined that the cause of the condition described in the LER was not reasonably within the licensee's ability to foresee and correct and, therefore, was not reasonably preventable. No performance deficiency nor violation of NRC requirements was identified. This LER is closed.

INSPECTION RESULTS

<table>
<tr><td colspan="4">Standby Gas Treatment System 'B' Train High Efficiency Particulate Air Filters Exceeded Maximum Allowable Technical Specification Bypass Leakage</td></tr>
<tr><td>Cornerstone</td><td>Significance</td><td>Cross-Cutting Aspect</td><td>Report Section</td></tr>
<tr><td>Barrier Integrity</td><td>Green
NCV 05000352,05000353/2025002-01
Open/Closed</td><td>[P.3] - Resolution</td><td>71152A</td></tr>
<tr><td colspan="4">A self-revealed Green finding and associated non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion XVI, “Correction Action,” was identified when Constellation did not promptly correct a condition adverse to quality (CAQ) associated with the ‘B’ train of the standby gas treatment system (SGTS) that resulted in unplanned inoperability and emergent unavailability. Specifically, Constellation documented a deficiency associated with the ‘B’ SGTS high efficiency particulate air (HEPA) filters following surveillance testing in March of 2020, and did not promptly correct the condition, which resulted in exceeding technical specification (TS) acceptance criteria during performance of the next surveillance test in February 2025.</td></tr>
<tr><td colspan="4">Description: The SGTS is common to both units and is designed with two HEPA filter banks and a single charcoal adsorber. The upstream HEPA filter bank removes radioactive particulates, while the charcoal adsorber removes gaseous iodine that may be present in the airstream. The downstream HEPA filter bank removes carbon fines that may become entrained in the airstream after leaving the charcoal adsorber.

On February 19, 2025, during TS surveillance testing of the ‘B’ SGTS HEPA filter banks, the as-found bypass leakage was identified to be 0.11 percent for the upstream bank, and 0.16 percent for the downstream filer back, which exceeded the maximum allowable bypass leakage of less than 0.05 percent as specified by Surveillance Requirement (SR) 4.6.5.3b.1, and required entry into 7-day dual-unit shutdown TS Action Statement 3.6.5.3a.1. Constellation documented this deficiency under IR 4838741, replaced and retested both HEPA filters, and restored full SGTS system operability on February 20, 2025.</td></tr>
</table>

In response, Constellation performed a work group evaluation (WGE) under IR 4838741, assignment 17, to determine the cause of the filters exceeding the maximum allowable bypass leakage. Constellation reviewed the previous surveillance test of the 'B' SGTS, performed on March 19, 2020, and noted the as-found leakage of the upstream and downstream filter banks were 0.044 percent and 0.046 percent, respectively. Due to the low margin to the SR limit of less than 0.05 percent bypass leakage, IR 4328138 was generated, stating the HEPA filters should be replaced prior to the next performance of the once-per-24-month surveillance test. Work request 1462173 was subsequently generated and bundled with the next surveillance test work order 5019667, and was subsequently scheduled as the post-maintenance test approximately nine months in advance of the 24-month due date. The inspectors noted this seemed reasonable, since the SGTS was normally in a stand-by configuration where the HEPA filters should not undergo any considerable increase in degradation. Subsequently, on October 12, 2020, Constellation approved surveillance test interval (STI) extension LG 20-012, which extended the 24-month interval to 48 months. Additionally, inspectors noted TS 4.0.2 allows surveillance interval extensions of up to 25%, which therefore supported the 'B' SGTS train surveillance test to be conducted up to five years following the previous performance. The WGE ultimately concluded that the cause of the unsatisfactory February 19, 2025, surveillance test was attributed to engineering not ensuring that the HEPA filter replacement was scheduled and executed prior to exceeding the SR limit of less than 0.05 percent bypass leakage.

Inspectors reviewed WGE 4838741-17 and STI LG 20-012, and discussed the work execution process with work management and engineering personnel, in an effort to understand primary roles and responsibilities for scheduling and executing HEPA filter replacement activity as discussed in the WGE. The inspectors noted that in STI LG 20-012, Constellation discussed the low HEPA filter bypass leakage margin identified in IR 4328138, as well as the need to replace the HEPA filters prior to the performance of the next 24-month surveillance test. The inspectors reviewed Constellation procedure ER-AA-425-1004, "Implementing an Approved Surveillance Frequency Change," Revision 1, and noted that step 4.3 requires a determination of what activities are required to be completed prior to implementing the STI extension, and creating the necessary assignments to implement and track these actions. The inspectors further noted that assignments were not created to implement and track replacements of the 'B' SGTS upstream and downstream HEPA filter banks prior to, nor after, approval of STI LG 20-012. The inspectors determined that Constellation's failure to create assignments as part of the STI extension process did not change the cause determination identified in WGE 4838741-17, but noted that it did provide further clarity regarding engineering's responsibility to ensure the HEPA filters were replaced in a timely manner as part of the STI extension approval process. Specifically, in this case, the work request to replace the filters was bundled to the surveillance test work order that was approved for extension. In response to the inspector's inquiry, Constellation created assignment 4838741-56 to capture engineering's failure to create an assignment, following STI approval, to ensure the HEPA filters were replaced and re-tested per the originally scheduled work request, and distribute the learnings via an engineering crew clock reset.

Corrective Actions: Constellation documented the deficiency under IR 4838741, replaced and retested both HEPA filters, restored full SGTS system operability, and performed WGE 4838741-17 to identify and address the causal aspects.

Corrective Action References: IR 4838741

Performance Assessment:

Performance Deficiency: The inspectors determined that Constellation's failure to promptly correct a degraded condition associated with the upstream and downstream safety-related HEPA filter banks of the 'B' SGTS was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Human Performance attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, not promptly correcting a deficiency resulted in unplanned inoperability and emergent unavailability of the 'B' SGTS.

Significance: The inspectors assessed the significance of the finding using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Specifically, using Exhibit 3, Barrier Integrity, question D.1, the finding was determined to be of very low safety significance, Green, because the finding only represented a degradation of the radiological barrier function provided for the SGTS.

Cross-Cutting Aspect: P.3 - Resolution: The organization takes effective corrective actions to address issues in a timely manner commensurate with their safety significance. Specifically, the inspectors determined that the cause of the performance deficiency was attributed to Constellation not taking effective corrective action to address an outstanding work request in a timely manner during the STI approval process. The inspectors determined this issue is reflective of present licensee performance because prior to the occurrence of this issue, Constellation had not taken action to correct or eliminate the performance characteristics associated with engineering engagement in the work management process.

Enforcement:

Violation: 10 CFR Part 50, Appendix B, Criterion XVI requires, in part, that CAQs, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. Constellation procedure PI-AA-125, "CAP Procedure," Revision 7, defines CAQs as failures, malfunctions, deficiencies, defective items, and nonconformances, and step 4.5.2 requires a corrective action to restore a CAQ.

Contrary to this, from March 19, 2020, to February 19, 2025, Constellation did not promptly correct a CAQ associated with the SGTS. Specifically, Constellation did not promptly correct a deficiency associated with HEPA filters in the 'B' SGTS, following identification on March 19, 2020. As a result, the 'B' SGTS was rendered inoperable when the upstream and downstream HEPA filter banks exceeded the TS allowable bypass leakage during surveillance testing on February 19, 2025.

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

EXIT MEETINGS AND DEBRIEFS

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

- On July 21, 2025, the inspectors presented the integrated inspection results to Christopher Giambrone, Work Management Director and Acting Plant Manager, and other members of the licensee staff.
- On April 30, 2025, the inspectors presented the Limerick In-service. inspection results to Mark Weis, Senior Staff Engineer, and other members of the licensee staff.
- On May 15, 2025, the inspectors presented the IP 71124.01 Radiation Hazards Assessment inspection results to Michael Gillin, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.06	Corrective Action Documents	IR 4862327	Lessons Learned with the RHRSW Leak on HBC-183	05/01/2025
	Miscellaneous	NCV 05000352,050353/2025001-01	Inadequate 50.69 Alternate Treatment of a Pipe Flaw in the RHRSW System	05/12/2025
71111.08G	NDE Reports	CISI-25-VT-003	Suppression Pool Concrete 237 Foot Elevation (SP Roof)	05/01/2025
		CISI-25-VT-004	Suppression Pool Concrete 177 Foot Elevation Rooms 184 and 184A	05/01/2025
		CISI-25-VT-010	Suppression Pool Concrete 177 Foot Elevation Room 185	05/01/2025
		CISI-25-VT-011	Suppression Pool Concrete 177 Foot Elevation Room	05/01/2025
		CISI-25-VT-012	Suppression Pool Concrete 177 Foot Elevation Room 189	05/01/2025
		CISI-25-VT-013	Suppression Pool Concrete 177 Foot Elevation Room 173	05/01/2025
		CISI-25-VT-014	Suppression Pool Concrete 177 Foot Elevation Room 174	05/01/2025
		CISI-25-VT-015	Suppression Pool Concrete 177 Foot Elevation Room 179	05/01/2025
		CISI-25-VT-016	Suppression Pool Concrete 177 Foot Elevation Room 180	05/01/2025
		CISI-25-VT-017	Suppression Pool Concrete 177 Foot Elevation Room 181	05/01/2025