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

February 9, 2026

Edward Casulli
Senior Vice President and Chief Nuclear Officer
Susquehanna Nuclear, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000387/2025004 AND 05000388/2025004

Dear Edward Casulli:

On December 31, 2025, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Susquehanna Steam Electric Station, Units 1 and 2. On February 2, 2026, the NRC inspectors discussed the results of this inspection with Douglas LaMarca, 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 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 Susquehanna Steam Electric 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 Susquehanna Steam Electric 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,

JASON SCHUSSLER
Digitally signed by JASON SCHUSSLER
Date: 2026.02.09 14:40:30 -05'00'

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

Docket Nos. 05000387 and 05000388
License Nos. NPF-14 and NPF-22

Enclosure:
As stated

cc w/ encl: Distribution via GovDelivery

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000387/2025004 AND 05000388/2025004 DATED FEBRUARY 9, 2026

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000387 and 05000388
License Numbers:	NPF-14 and NPF-22
Report Numbers:	05000387/2025004 and 05000388/2025004
Enterprise Identifier:	I-2025-004-0042
Licensee:	Susquehanna Nuclear, LLC
Facility:	Susquehanna Steam Electric Station, Units 1 and 2
Location:	769 Salem Blvd., Berwick, PA
Inspection Dates:	October 1, 2025 to December 31, 2025
Inspectors:	R. Wehrmann, Senior Resident Inspector D. Antonangeli, Resident Inspector E. Brady, Resident Inspector J. Lilliendahl, Senior Emergency Response Coordinator T. Setzer, Senior Operations Engineer L. Sinclair, Senior Operations Engineer
Approved By:	Jason E. Schussler, Chief Projects Branch 1 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 Susquehanna Steam Electric 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

Failure to Demonstrate Effective Control of the Condition of the Liquid Radwaste Collection System			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green NCV 05000387, 05000388/2025004-01 Open/Closed	[P.1] - Identification	71152A
The inspectors identified a Green finding and associated non-cited violation (NCV) of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.65(a)(1) when the performance of a structure, system, and component (SSC) was not effectively controlled through the performance of appropriate preventive maintenance as specified in paragraph 10 CFR 50.65 (a)(2), and the licensee failed to move the system to (a)(1). Specifically, multiple instances of clogged drains constituted a performance problem that called into question the licensee's demonstration that the performance of the Unit 1 reactor building liquid radioactive waste collection system, a maintenance rule scoped system, was being effectively controlled with results achieved through appropriate preventive maintenance under 10 CFR 50.65(a)(2), and the licensee failed to move the system to (a)(1).			

Additional Tracking Items

None.

PLANT STATUS

Unit 1 began the inspection period at rated thermal power. On November 10, 2025, the unit down powered to 64 percent for a sequence exchange and returned to rated thermal power on November 11, 2025. On November 12, 2025, the unit commenced shutdown for a maintenance outage. On November 16, 2025, the unit commenced startup and returned to rated thermal power on November 21, 2025. On December 10, 2025, the unit down powered to 69 percent for channel distortion testing and returned to rated thermal power on December 11, 2025. The unit remained at or near rated thermal power for the remainder of the inspection period.

Unit 2 began the inspection period at rated thermal power. On October 28, 2025, the unit scrammed due to a main generator trip. The unit returned to rated thermal power on November 4, 2025. On November 23, 2025, the unit down powered to 66 percent for a sequence exchange and scram time testing and returned to rated power on November 24, 2025. The unit 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

71111.04 - Equipment Alignment

Partial Walkdown (IP Section 03.01) (2 Samples)

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

(1) Unit Common, 'C' emergency diesel generator support systems on November 5, 2025
(2) Unit 2, reactor core isolation cooling on November 12, 2025

71111.05 - Fire Protection

Fire Area Walkdown and Inspection (IP Section 03.01) (3 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 2, standby control system area and access corridor, 749-foot elevation, fire areas 2-5A-N and 2-5A-W, on October 10, 2025
(2) Unit Common, diesel building, 677-foot and 710-foot elevations, fire areas 0-41A, 0-41-B, 0-41C, and 0-41-D, on October 23, 2025
(3) Unit 1, reactor building, 749-foot elevation, fire areas 1-5A-N, 1-5A-S, 1-5A-W, 1-5F, and 1-5G, on October 30, 2025

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 exam administered on September 8, 2025, and the biennial written examinations completed on September 3, 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 examination administered on September 3, 2024.

Annual Requalification Operating Tests

The inspectors evaluated the adequacy of the facility licensee's annual requalification operating test.

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 control room during startup after the Unit 1 maintenance outage on November 16, 2025.

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

(1) The inspectors observed and evaluated licensed operator requalification training in the Unit 1 simulator on October 8, 2025.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (3 Samples)

The inspectors evaluated the effectiveness of maintenance to ensure the following SSCs remain capable of performing their intended function:

(1) Unit 2, 125-volt direct current battery maintenance strategy on October 14, 2025
(2) Unit 1, reactor recirculation pump seal leak on November 13, 2025
(3) Unit 1, seismic monitor repairs (VT-15702) on November 15, 2025

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management (IP Section 03.01) (2 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 Common, elevated risk during the T-10 system outage window on October 13, 2025
(2) Unit 1, elevated risk due to a maintenance outage on November 12, 2025

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (5 Samples)

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

(1) Unit 2, loose coating found on top and sides of 2X201A internal transformer on October 9, 2025
(2) Unit 2, foreign material found in states links electrical connection to computer points for reactor building chiller on October 9, 2025
(3) Unit 2, emergency service water components found below minimum acceptable flow rates during performance of OT-054-076 case 5B-E on October 21, 2025
(4) Unit 2, 2A residual heat removal service water pump differential pressure found in the alert range on November 5, 2025
(5) Unit 1, scram header pressure slowly decreasing on November 30, 2025

71111.20 - Refueling and Other Outage Activities

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

(1) The inspectors evaluated Unit 1 maintenance outage from November 13 through 18, 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 (IP Section 03.01) (4 Samples)

(1) Unit Common, 'C' emergency diesel generator after system outage window on October 3, 2025
(2) Units 1 and 2, restore of the reactor protection system to normal power in accordance with OP-158-001 and OP-258-001 on October 17, 2025
(3) Unit 2, 'B' train residual heat removal service water pump troubleshooting and repair on October 23, 2025
(4) Unit 1, high-pressure coolant injection valve HV155F002 packing leak on November 13, 2025

Surveillance Testing (IP Section 03.01) (1 Sample)

(1) Unit 1, reactor pressure vessel level functional testing per SI-180-203 on October 22, 2025

Inservice Testing (IST) (IP Section 03.01) (1 Sample)

(1) Unit 1, core spray flow verification on October 14, 2025

71114.02 - Alert and Notification System Testing

Inspection Review (IP Section 02.01-02.04) (1 Sample)

(1) The inspectors evaluated the licensee's maintenance and testing of the licensee's alert and notification system from November 17 through 20, 2025, for the period of October 2023 through September 2025.

71114.03 - Emergency Response Organization Staffing and Augmentation System

Inspection Review (IP Section 02.01-02.02) (1 Sample)

(1) The inspectors evaluated the readiness of the licensee's Emergency Preparedness Organization from November 17 through 20, 2025.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

(1) The inspectors evaluated the following submitted Emergency Action Level and Emergency Plan changes.

- E2024-12-03, “Adding Pathway ‘C’ to Rapid Assessment in Unified Radiological Assessment System for Consequence Analysis Interface,” dated December 5, 2024
- S2025-05-19-01, “Change to Alternate Off-Site Notification Process,” dated May 22, 2025
- E2025-07-04, “Change to Criteria for Onset of Fuel Clad Damage in Unified Radiological Assessment System for Consequence Analysis Interface,” dated July 15, 2025

This evaluation does not constitute NRC approval.

71114.05 - Maintenance of Emergency Preparedness

Inspection Review (IP Section 02.01 - 02.11) (1 Sample)

(1) The inspectors evaluated the maintenance of the emergency preparedness program from November 17 through 20, 2025, for the period of October 2023 through September 2025.

71114.06 - Drill Evaluation

Additional Drill and/or Training Evolution (2 Samples)

The inspectors evaluated:

(1) Unit 1, simulator scenario that included a declaration of a general emergency due to a residual heat removal leak lowering vessel level on October 7, 2025

(2) Unit 1, simulator scenario that included a declaration of a general emergency due to a fire in the emergency switchgear room on November 4, 2025

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

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

(1) Unit 1, July 1, 2024 through June 30, 2025
(2) Unit 2, July 1, 2024 through June 30, 2025

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

(1) Unit 1, July 1, 2024 through June 30, 2025
(2) Unit 2, July 1, 2024 through June 30, 2025

MS07: High-Pressure Injection Systems (IP Section 02.06) (2 Samples)

(1) Unit 1, July 1, 2024 through June 30, 2025
(2) Unit 2, July 1, 2024 through June 30, 2025

MS08: Heat Removal Systems (IP Section 02.07) (2 Samples)

(1) Unit 1, July 1, 2024 through June 30, 2025
(2) Unit 2, July 1, 2024 through June 30, 2025

MS09: Residual Heat Removal Systems (IP Section 02.08) (2 Samples)

(1) Unit 1, October 1, 2024 through September 30, 2025
(2) Unit 2, October 1, 2024 through September 30, 2025

MS10: Cooling Water Support Systems (IP Section 02.09) (2 Samples)

(1) Unit 1, October 1, 2024 through September 30, 2025
(2) Unit 2, October 1, 2024 through September 30, 2025

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

(1) September 16, 2024 through September 15, 2025

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

(1) September 16, 2024 through September 15, 2025

EP01: Drill/Exercise Performance (IP Section 02.12) (1 Sample)

(1) October 1, 2024 through September 30, 2025

EP02: Emergency Response Organization Drill Participation (IP Section 02.13) (1 Sample)

(1) October 1, 2024 through September 30, 2025

EP04: Emergency Response Facility and Equipment Readiness (IP Section 02.14) (1 Sample)

This is a new NRC performance indicator, introduced in NEI 99-02, Revision 8 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24331A114). The licensees began collecting data for this performance indicator on January 1, 2025.

(1) January 1, 2025 through September 30, 2025

71152A - Annual Follow-Up of Problem Identification and Resolution

Annual Follow-Up of Selected Issues (Section 03.03) (2 Samples)

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

(1) Unit 1, reactor building drain clogging resulting in entry into off-normal procedure for internal flooding on November 13, 2025
(2) Units 1 and 2, leaking vent valve in residual heat removal cross connect header on November 14, 2025

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

(1) The inspectors reviewed the licensee's corrective action program to identify potential trends in material control and traceability that might be indicative of a more significant safety issue.

71153 - Follow-Up of Events and Notices of Enforcement Discretion

Personnel Performance (IP Section 03.03) (1 Sample)

(1) The inspectors evaluated a Unit 2 scram and the licensee's performance on October 28, 2025.

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT, AND ABNORMAL

92709 - Licensee Strike Contingency Plans

Licensee Strike Contingency Plans (1 Partial)

(1) (Partial)
The contract between the International Brotherhood of Electrical Workers Local 1600 and Susquehanna was set to expire in October 2025. In preparation for a potential strike, the NRC inspectors evaluated the adequacy of the licensee's contingency plan. The inspectors assessed the adequacy of the plan's post-strike staffing levels, staff qualifications, safety conscious working environment, and site access in meeting

operational and security requirements. Prior to completion of this inspection sample, contract negotiations ended and the NRC inspectors ceased inspection efforts under this sample because the potential for a strike no longer existed.

INSPECTION RESULTS

Failure to Demonstrate Effective Control of the Condition of the Liquid Radwaste Collection System			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green NCV 05000387, 05000388/2025004-01 Open/Closed	[P.1] - Identification	71152A

The inspectors identified a Green finding and associated NCV of 10 CFR 50.65(a)(1) when the performance of an SSC was not effectively controlled through the performance of appropriate preventive maintenance as specified in paragraph 10 CFR 50.65 (a)(2), and the licensee failed to move the system to (a)(1). Specifically, multiple instances of clogged drains constituted a performance problem that called into question the licensee's demonstration that the performance of the Unit 1 reactor building liquid radioactive waste collection system, a maintenance rule scoped system, was being effectively controlled with results achieved through appropriate preventive maintenance under 10 CFR 50.65(a)(2), and the licensee failed to move the system to (a)(1).

Description: The licensee applied 10 CFR 50.65(a)(2) requirements to perform maintenance on the reactor building, liquid radioactive waste collection system, floor drains, as a system scoped into the maintenance rule. The determination of effective system performance relies on the system performance demonstration results which are achieved through preventive maintenance. The inspectors identified several equipment performance demonstration problems that indicated preventive maintenance was not effective.

First, the inspectors determined a performance problem existed. The performance problem is represented by three occurrences where the maintenance rule system failed to perform the specified function by not allowing sufficient flow through the liquid radioactive collection system drains, as documented in AR-2024-04913, CR-2025-11309, and CR-2025-14055. Specifically, the performance problem captured by these condition reports occurred over multiple years and, in some cases, shortly after the preventive maintenance activities were performed. Therefore, the inspectors concluded the system performance problems represented a situation which invalidated the demonstration that the performance of the SSC is being effectively controlled through appropriate preventive maintenance.

More specifically, the cited condition reports identify multiple events which represent a performance demonstration problem with the reactor building liquid radioactive waste collection system drain maintenance rule system. On November 13, 2025, liquid radioactive waste collection system floor drains 1LRWI102D, 1LRWI102E, and 1LRWI102F were found not flowing. On March 29, 2024, AR202404913 documented blocked drains 1LRW1204A and 1LRW1203E. On July 14, 2025, CR202511309 identified blocked drains in the Unit 1 zone 3 supply plenum causing water to run down the 749foot elevation. Lastly, on September 10, 2025, CR202514055 recorded another entry into 1ONFLOOD due to standing water on the 670foot elevation, with most local drains appearing blocked. The inspectors also noted that preventive maintenance work order (WO) RACT 2603435, completed March 6, 2024, documented several drains across the 645 and 749foot elevations that were slow to collect

the liquid radioactive waste. Collectively, these events demonstrate a pattern of degraded liquid radioactive waste collection system performance, indicating a performance demonstration problem.

Lastly, because this performance problem invalidated the performance demonstration, the inspectors concluded that the licensee should have moved the system to (a)(1). The inspectors noted that, for purposes of 10 CFR 50.65(a)(2), performance demonstrations are a continuous evaluation of the SSC performance. In this instance, the inspectors determined the performance of the SSC decreased due to drain failures and clogging which provided indications that the demonstration of effective preventive maintenance was no longer valid. Consequently, in accordance with the maintenance rule, the SSC was required to be moved to (a)(1), which did not occur.

Corrective Actions: The licensee entered this issue into the corrective action program.

Corrective Action References: CR-2025-14055, CR-2025-17199, CR-2025-17204, CR-2025-17207

Performance Assessment:

Performance Deficiency: The inspectors determined the licensee did not move an SSC to 10 CFR 50.65(a)(1) when the performance of that SSC was not effectively controlled through the performance of appropriate preventive maintenance as specified in paragraph 10 CFR 50.65 (a)(2).

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Equipment Performance attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, due to inadequate preventive maintenance of the liquid radwaste collection system, the licensee failed to demonstrate that the performance of the system was being effectively controlled and failed to move the system to (a)(1). This resulted in more blocked drains than were assumed in the Updated Final Safety Analysis Report, Section 3.4, analysis for the mitigation of internal flooding and directly resulted in the facility entering in off-normal procedures for internal flooding twice since the last performance of preventive maintenance. This issue is similar to examples 8.c and 8.g in IMC 0612, Appendix E, “Examples of Minor Issues,” in that effective control of equipment performance or condition for equipment scoped in the maintenance rule was not demonstrated, as evidenced by occurrences of clogged drains.

Significance: The inspectors assessed the significance of the finding using IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” using IMC 0609, Appendix A, Exhibit 1, “Initiating Events Screening Questions,” Section B. The screening question was answered as NO, and the inspectors therefore determined the finding was of very low safety significance (Green).

Cross-Cutting Aspect: P.1 - Identification: The organization implements a corrective action program with a low threshold for identifying issues. Individuals identify issues completely, accurately, and in a timely manner in accordance with the program. Specifically, the preventive maintenance identified slow drains in multiple areas of the reactor building; however, these observations were not entered into the corrective action program to allow for the conditions to be promptly identified. Moreover, the preventive maintenance did not ensure

that the drains were fully cleared, as evidenced by blocked drains 23 days after completion of the preventive maintenance.

Enforcement:

Violation: 10 CFR 50.65(a)(1) requires, in part, that “each holder of an operating license for a nuclear power plant under this part shall monitor the performance or condition of SSCs, against licensee-established goals, in a manner sufficient to provide reasonable assurance that these SSCs, as defined by 10 CFR 50.65(b), are capable of fulfilling their intended functions.”

10 CFR 50.65(a)(2), requires, in part, that “monitoring as specified in 10 CFR 50.65(a)(1) is not required where it has been demonstrated that the performance or condition of an SSC is being effectively controlled through the performance of appropriate preventive maintenance, such that the SSC remains capable of performing its intended function.”

Contrary to the above, from March 6, 2024, to December 31, 2025, the licensee failed to effectively demonstrate that the performance or condition of an SSC was being effectively controlled through the performance of appropriate preventive maintenance, such that the SSC remained capable of performing its intended function. Specifically, multiple instances of clogged drains constituted a performance problem that called into question the licensee’s demonstration that the reactor building liquid radwaste collection system, a maintenance rule scoped system, was being effectively controlled through appropriate preventive maintenance under 10 CFR 50.65(a)(2), and the licensee failed to move the system to (a)(1).

Enforcement Action: This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.

Minor Violation: Failure to Maintain Traceability of Quality Materials	71152S

The inspectors conducted a semiannual trend review of Fix-It-Now troubleshooting and work control activities for the period of May 1 through December 1, 2025, focused on the control of quality materials. As a result of the review, the inspectors did not identify any performance deficiencies or violations of more than minor significance; however, the inspectors did identify a potential adverse trend associated with the traceability of quality materials, parts, and components.

10 CFR Part 50, Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,” Criterion VIII, “Identification and Control of Materials, Parts, and Components,” requires that “Measures shall be established for the identification and control of materials, parts, and components including partially fabricated assemblies. These measures ensure that identification of the item is maintained by heat number, part number, serial number, or other appropriate means, either on the item or on records traceable to the item, as required throughout fabrication, erection, installation, and use of the item. These identification and control measures shall be designed to prevent the use of incorrect or defective materials, parts, and components.”

During reviews of the work completed via the Fix-It-Now troubleshooting process, there were 503 quality related items purchased out under WO 2764309-1, “Fin Elec Operations Support for 2025.” The inspectors noted that the materials purchased out via this WO did not clearly document traceability to the end use in the records referenced for the repair of the SSCs. Specifically, there were four examples.

1. On April 8, 2025, two FNA-2 fuses were replaced during troubleshooting of the Unit 2 standby liquid control systems valves in 2C617.

2. On June 18, 2025, CR-2025-10215 utilized part number 1C613E21AF07A to replace the bypass indication system indications fuse.

3. On October 9, 2025, CR-2025-15414 utilized indication resistor catalog number 91003070 to replace a resistor in the indicator circuit for the XD-08271E9 'E' emergency diesel generator building tornado damper.

4. On November 20, 2025, CR-2025-17601 was generated to document that two relief valves were issued under WO 2680744 on October 14, 2025. However, these relief valves did not have any traceable records of testing or evaluations of acceptance for use.

On November 18, 2025, CR-2025-17424 was generated to document the inspectors' observations and provided clear traceability for the materials used in safety-related end uses.

Screening: The failure to maintain documentation of traceability was a performance deficiency within the ability of the licensee to foresee and prevent. This performance deficiency and associated violation was screened in accordance with IMC 0612, Appendix B, and was determined to be minor because it did not adversely affect any cornerstone objectives. Specifically, the circumstances did not result in a failure to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

Enforcement: The licensee has entered this issue in the corrective action program and is adding clarification to the WO process.

This failure to comply with 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," Criterion VIII, "Identification and Control of Materials, Parts, and Components," constitutes a minor violation that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.

EXIT MEETINGS AND DEBRIEFS

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

- On November 20, 2025, the inspectors presented the emergency preparedness program inspection results to Douglas Lamarca, Plant Manager, and other members of the licensee staff.
- On December 17, 2025, the inspectors presented the performance indicator verifications inspection results to Adrian Nestico, Radiation Protection Manager, and other members of the licensee staff.

- On February 2, 2026, the inspectors presented the contingency plans for licensee strikes or lockouts to Douglas LaMarca, Plant Manager, and other members of the licensee staff.
- On February 2, 2026, the inspectors presented the integrated inspection results to Douglas LaMarca, Plant Manager, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Drawings	FF129010 Sht 201	RCIC Overspeed Trip Diagram	Revision 3
		FF129010 Sht 8101	Susquehanna S.E.S. Units 1 & 2 Process Diagram RCIC System	Revision 8
		FF219010 Sht 8001	Functional Control Drawing Reactor Core Isolation Cooling System	Revision 9
		M-134	Susquehanna S.E.S Common P&ID A-D Diesel Auxiliaries Fuel Oil, Lube Oil, Air Intake & Exhaust, and Jacket Water Cooling Systems	Revision 54
	Miscellaneous	CL-024-0016	Mechanical Diesel Generator C	Revision 34
		DBD041	Design Basis Document for Reactor Core Isolation Cooling System	Revision 4
71111.05	Corrective Action Documents Resulting from Inspection	CR-2025-15903	NRC Resident Questioned If U2 Racking Machine Is Accounted for in the Transient Combustible Program	10/20/2025
	Drawings	C-1732 Sht 1	Susquehanna Unit 2 Reactor Building Fire Zone Plan, Elevation 749'-1"	Revision 17
	Fire Plans	FP-0-DG-677	Susquehanna S.E.S. Prefire Plan Unit 1 Diesel Generators, Elevation 677'-0"	Revision 0
		FP-0-DG-710	Susquehanna S.E.S. Prefire Plan Unit 1 Diesel Generators, Elevation 710'-9"	Revision 0
		FP-013-DG	Diesel Generator Buildings Digital Prefire Plan	Revision 1
		FP-1-RB-749	Susquehanna S.E.S. Prefire Plan Unit 1, Elevation 749'-1"	Revision 0
		FP-113-RB1	Unit 1 Reactor Building Prefire Plan	Revision 3
	Procedures	NDAP-QA-0440	Control of Transient Combustibles/Hazardous Materials	Revision 029
71111.12	Corrective Action Documents	CR-2025-15440 CR-2025-17221 CR-2025-17312		
	Work Orders	WO 2322005-0		
71111.13	Miscellaneous	03-001 T-20 (0X103) SOW	For T-21 PPL AWS Work Window	12/01/2025

		24-001 All Aligned DG	For T-21 PPL AWS Work Window	12/01/2025
		T-10 230 kV CB		10/13/2025
	Procedures	NDAP-QA-0340	Protected Equipment Program	Revision 47
71111.15	Corrective Action Documents	CR-2025-15350 CR-2025-15469 CR-2025-15888 CR-2025-15925 CR-2025-15926 CR-2025-16799 CR-2025-17836		
	Drawings	E-216	Unit 2 Schematic Diagram Reactor Building Chiller	Revision 24
71111.24	Corrective Action Documents	CR-2025-17150		
	Procedures	SO-151-B02	Quarterly Spray Flow Verification Division 2	Revision 31
	Work Orders	PCWO 2860584-3 RTSV 2838738 WO 2764309-1		
71114.02	Miscellaneous		Susquehanna Steam Electric Station Alert and Notification System Evaluation Report	02/07/2025
71114.03	Corrective Action Documents Resulting from Inspection	AR-2025-17421 CR-2025-17452		
71114.04	Procedures	EP-102	Review, Revision, and Distribution of the SSES Emergency Plan and 50.54(Q) Evaluations	Revision 13
71114.05	Miscellaneous		Susquehanna Steam Electric Station Emergency Plan	Revision 69
71151	Self-Assessments	DPA-01-DI-2023-17656 DPA-01-DI-2023-17657 DPA-01-DI-2023-17658 DPA-01-DI-2023-17659 DPA-01-DI-2023-		

		17660 DPA-01-DI-2024-15985 DPA-01-DI-2024-15986 DPA-01-DI-2024-15989 DPA-01-DI-2024-15990 DPA-01-DI-2024-15993 DPA-01-DI-2025-00336 DPA-02-DI-2025-00336 DPA-03-DI-2025-00336 DPA-04-DI-2025-00336 DPA-05-DI-2025-00336 DPA-06-DI-2025-00336 DPA-07-DI-2024-00451 DPA-08-DI-2024-00451 DPA-09-DI-2024-00451 DPA-10-DI-2024-00451 DPA-11-DI-2024-00451 DPA-12-DI-2024-00451		

71152A	Corrective Action Documents	CR-2025-17199 CR-2025-17204 CR-2025-17207		
71152S	Corrective Action Documents Resulting from Inspection	CR-2025-17424		
	Work Orders	WO 2764309-1		