



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
475 ALLENDALE RD, STE 102
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

February 29, 2024

Brad Berryman
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 –
COMMERCIAL GRADE DEDICATION INSPECTION REPORT
05000387/2024011 AND 05000388/2024011

Dear Brad Berryman:

On February 15, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Susquehanna Steam Electric Station, Units 1 and 2 and discussed the results of this inspection with Derek Jones, Plant Manager, and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

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,

Glenn T. Dentel, Chief
Engineering Branch 2
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 LISTSERV

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 –
 COMMERCIAL GRADE DEDICATION INSPECTION REPORT
 05000387/2024011 AND 05000388/2024011 DATED FEBRUARY 29, 2024

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DOCUMENT NAME: https://usnrc.sharepoint.com/teams/EngineeringBranch2/Shared Documents/_Commercial Grade Dedication Inspection/CGD Inspection Reports/2024/SUS CGDI 2024011.docx
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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: 05000387/2024011 and 05000388/2024011

Enterprise Identifier: I-2024-011-0012

Licensee: Susquehanna Nuclear, LLC

Facility: Susquehanna Steam Electric Station, Units 1 and 2

Location: 769 Salem Blvd., Berwick PA

Inspection Dates: January 29, 2024 to February 15, 2024

Inspectors: L. Cline, Senior Reactor Inspector
N. Mentzer, Reactor Inspector
J. Tiff, Reactor Inspector

Approved By: Glenn T. Dentel, Chief
Engineering Branch 2
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a commercial grade dedication 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

No findings or violations of more than minor significance were identified.

Additional Tracking Items

None.

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 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

71111.21N.03 - Commercial Grade Dedication

The inspectors reviewed the implementation of the licensee's processes for dedicating commercial grade (CG) items/services as basic components and/or for procuring safety-related structures, systems, and components for the following samples:

Commercial Grade Dedication (15 Samples)

- (1) Fuel oil for the A thru E emergency diesel generators (Purchase Order (PO)# 699976, Catalogue identification (CID)# 91873010, CG)
- (2) Shielded ball bearing for the Unit 2 residual heat removal B flow control valve motor actuator (PO# 21024829, CID# 91010160, CG)
- (3) Pressure regulator filter for the Unit 1 and 2 scram discharge volume vent and drain valves (PO# 655332, CID# 1014796, CG)
- (4) Pressure regulator for the B emergency diesel generator turbo charger lube oil system (PO# 617106, CID# 91017044, CG)
- (5) Stainless steel Belleville washer for the Unit 1 and 2 125 Vdc station batteries (PO# 688149, CID# 91024767, CG)
- (6) Crompton MOV Long Life Grease for the Unit 2 residual heat removal heat exchanger residual heat removal service water outlet valve motor actuator (PO# 653667 CID# 927200, CG)
- (7) Air filter for the A thru E emergency diesel generator air start systems (PO# 688066, CID# 1040231, CG)
- (8) Drive belt, matched set, for the B battery rooms exhaust fan (PO# 669014, CID# 91013477, CG)
- (9) 115 Vdc control relay for the Unit 2 B containment radiation monitor local control panel isolation (PO# 540965, CID# 91011878, CG)
- (10) Circuit breaker with under voltage trip coil for the Unit 1 B reactor protection system motor generator set (PO# 689634, CID# 1005287, CG)
- (11) 49 to 600 Vdc relay for the Unit 1 reactor core isolation cooling system (PO# 21089313, CID# 91033401, CG)
- (12) Circuit breaker for the residual heat removal and reactor core isolation cooling systems control and indication panel 1C618 (PO# 91004512, CID# 91032226, CG)
- (13) 700 microfarad electrolytic capacitor for the Unit 1 and 2 125 Vdc station batteries (PO# 701151, CID# 1045694, safety-related)
- (14) Hydraulic cylinder for the Unit 1 high pressure coolant injection system (PO# 657313, CID# 1040195, safety-related)

- (15) 125 Vdc Agastat control relay for the A thru E emergency diesel generator control and exciter panels (PO# 662925, CID# 1040795, safety-related)

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On February 15, 2024, the inspectors presented the commercial grade dedication inspection results to Derek Jones, Plant Manager, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.03	Calculations	EC-EPVS-1002	Susquehanna Steam Electric Station Shelf Life Calculation	Revision 1
	Corrective Action Documents	CR-2018-14871, CR-2019-04372, CR-2022-08697		
	Corrective Action Documents Resulting from Inspection	CR-2024-01163, CR-2024-01437, CR-2024-01720, CR-2024-01917, CR-2024-01919, CR-2024-01922, CR-2024-02372, AR-2024-02465, CR-2024-02554, CR-2024-02555, AR-2024-02570		
	Engineering Changes	EC 1389658	Replacement Regulator for SCRAM Discharge Volume Vent and Drain Valves	Revision 2
		RIE No. 539938	Replacement grease for use in Limitorque operators	1/15/2004
	Miscellaneous	ASTM Standard D2596	Standard Test Method for Measurement of Extreme-Pressure Properties of Lubricating Grease (Four-Ball Method)	2020
		EPRI 1008256	Plant Support Engineering: Guidelines for Technical Evaluation of Replacement Items in Nuclear Power Plants	Revision 1
		EPRI NP-5652 and TR-102260	Plant Engineering Guideline: Guideline for Acceptance of Commercial Grade Items in Nuclear Safety-Related Applications	Revision 1
		EPRI NP-6408 (NCIG-13)	Plant Engineering: Guidelines for Establishing, Maintaining, and Extending the Shelf Life Capability of Limited Life Items	Revision 1
		Specification H1015	Procurement of Diesel Fuel Oil for Emergency Diesel Generators	Revision 5
	Procedures	MC-OI-011	Susquehanna Steam Electric Station Shelf Life Control	Revision 17

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Program	
		NDAP-QA-0511	Lubricant Control Program	Revision 7
		NDAP-QA-0633	Diesel Fuel Oil Testing Program	Revision 10
		NDAP-QA-201	Material Control Activities	Revision 28
		NEPM-QA-300	Dedication of Commercial Grade Items and Services	Revision 5
		NOSP-QA-303	Receipt Inspection	Revision 8
		SC-023-002	New Diesel Fuel Oil Receipt Analyses	Revision 24
	Work Orders	WO 2367608	Post Maintenance Testing for Misc Control Valves, Perform Timing Check & Support TP-0240146 (Shutdown/Idle/Loaded)	Dated 08/21/2022