



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

March 1, 2023

Brad Berryman
Senior Vice President and Chief Nuclear Officer
Susquehanna Nuclear, LLC
769 Salem Blvd, NUCSB3
Berwick, PA 18603

SUBJECT: ANNUAL ASSESSMENT LETTER FOR SUSQUEHANA STEAM ELECTRIC STATION, UNITS 1 AND 2 (REPORTS 05000387/2022006 AND 05000388/2022006)

Dear Brad Berryman:

The U.S Nuclear Regulatory Commission (NRC) has completed its end-of-cycle performance assessment of Susquehanna Steam Electric Station (Susquehanna), Units 1 and 2, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2022 through December 31, 2022. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. The NRC concluded that overall performance at your facility preserved public health and safety. The baseline inspection program was completed at your facility as defined in Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program - Operations Phase."

The NRC determined the performance at Susquehanna, Units 1 and 2, during the most recent quarter was within the Licensee Response Column (Column 1) of the NRC's Reactor Oversight Process (ROP) Action Matrix in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program," because all inspection findings had very low safety significance (i.e., Green), and all PIs were within the expected range (i.e., Green). Therefore, the NRC plans to conduct ROP baseline inspections at Susquehanna, Units 1 and 2.

The enclosed inspection plan lists the inspections scheduled through December 31, 2024. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last twelve months of the inspection plan are tentative and may be revised. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

In response to the COVID-19 public health emergency (PHE), the NRC adjusted inspection plans and schedules to safeguard the health and safety of both NRC and licensee staff while still effectively implementing the ROP. While the PHE continues, overall conditions throughout the country support performance of our inspection and oversight activities returning to normal onsite presence by our resident and region-based inspectors and completion of nominal baseline inspection samples. We continue to monitor site-specific conditions and, as discussed in our November 2, 2021, memo, "Implementation of Inspection Programs Following Re-Entry

from the Public Health Emergency for the Reactor Safety Program” (ML21295A302), it may be necessary to alter how and when we perform our inspection and oversight activities as we balance the importance of protecting the health and safety of our staff with the need to conduct effective oversight that supports the NRC’s critical safety mission.

For inspections requiring extensive coordination with offsite organizations, such as evaluated emergency preparedness exercises, NRC guidance and frequently asked questions for security and emergency preparedness can be found here: <https://www.nrc.gov/about-nrc/covid-19/security-ep/>. Similarly, the NRC has developed guidance if force-on-force inspections cannot be completed as scheduled due to an emergency, such as the COVID-19 PHE. These changes help ensure the health and safety of both NRC and licensee staff while maintaining the NRC’s important safety and security mission during the COVID-19 PHE. The attached inspection plan is accurate on the date of issuance but remains subject to change based on approval of potential exemption requests or other changes needed due to changing conditions in the COVID-19 PHE. NRC staff will contact your appropriate regulatory affairs staff in order to coordinate inspection planning and scheduling.

In addition to baseline inspections, the NRC plans to conduct Inspection Procedure 71003, “Post-Approval Site Inspection for License Renewal,” at your facility.

Beginning on January 1, 2023, the engineering inspection frequency will transition from a triennial (3-year) to a quadrennial (4-year) cycle. The new engineering inspection program will consist of a “Comprehensive Engineering Team Inspection (CETI)¹” and three “Focused Engineering Inspections (FEIs)” that will be performed in each quadrennial cycle. For the cycle beginning in 2023, the FEIs will be: “Fire Protection Team Inspection,” “Commercial Grade Dedication,” and an engineering inspection that reviews age-related degradation and management².

¹ Aspects of the Design Basis Assurance Inspection (DBAI), Evaluations of Changes, Tests, & Experiments, and Heat Sink inspections will be included in the new CETI inspection. Previously scheduled Evaluation of Changes, Tests, & Experiments and Heat Sink inspections have been cancelled and removed from the attached Report 22.

² The Age-Related Degradation procedure is publicly available and the NRC plans to implement the first inspection of this type beginning in July 2023.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC's Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 610-337-5337 with any questions you have regarding this letter.

Sincerely,

Jonathan E. Greives, Chief
Projects Branch 4
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: ANNUAL ASSESSMENT LETTER FOR SUSQUEHANA STEAM ELECTRIC STATION, UNITS 1 AND 2 (REPORTS 05000387/2022006 AND 05000388/2022006) DATED MARCH 1, 2023

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DOCUMENT NAME: <https://usnrc.sharepoint.com/teams/ROPAssessmentMeetings/Shared Documents/ROP-23 EOC Review/Branch 4/RI 2022 Annual Assessment Letter Susquehanna.docx>

ADAMS ACCESSION NUMBER: ML23059A047

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OFFICE	RI/DORS	RI/DORS			
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OFFICIAL RECORD COPY

Site Inspection Activity Plan

Susquehanna

01/01/2023 - 12/31/2024

Unit	Start	End	Activity	CAC	Title	Staff Count
RP - 71124.05 Instruments						1
1,2	2/6/2023	2/10/2023	IP 71124.05	000729	Radiation Monitoring Instrumentation	
License Renewal Phase 3 - Susquehanna Unit 1						2
1	2/13/2023	2/17/2023	IP 71003	000687	Post-Approval Site Inspection for License Renewal	
License Renewal Phase 1 - Susquehanna Unit 2						1
2	3/27/2023	4/7/2023	IP 71003	000687	Post-Approval Site Inspection for License Renewal	
Inservice Inspection - Susquehanna Unit 2						1
2	3/27/2023	4/7/2023	IP 71111.08G	000701	Inservice Inspection Activities (BWR)	
RP - 71124.01 Radiological Hazards						1
1,2	3/27/2023	3/31/2023	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
Access Control, Protective Strat Review, TS Review, Security Plan Review, PI- SUS						4
1,2	5/22/2023	5/26/2023	IP 71130.02	000734	Access Control	
1,2	5/22/2023	5/26/2023	IP 71130.05	000737	Protective Strategy Evaluation	
1,2	5/22/2023	5/26/2023	IP 71130.09	001656	Security Plan Changes	
1,2	5/22/2023	5/26/2023	IP 71130.14	000743	Review of Power Reactor Target Sets	
1,2	5/22/2023	5/26/2023	IP 71151	001338	Performance Indicator Verification	
License Renewal Phase 2 - Susquehanna Unit 2						1
2	7/24/2023	7/28/2023	IP 71003	000687	Post-Approval Site Inspection for License Renewal	
FY23 Susquehanna Initial License Exam						4
1,2	6/25/2023	6/30/2023	OV	000956	FB-OR-ONSITE VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
1,2	7/31/2023	8/11/2023	EXAD	000500	FB-OR-INITIAL LICENSE EXAM ADMINISTRATION (EXAD)	
RP - 71124.08 Radwaste Shipping and 71151 PIV						1
1,2	9/18/2023	9/22/2023	IP 71124.08	000732	Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation	
1,2	9/18/2023	9/22/2023	IP 71151	000746	Performance Indicator Verification	
EP PROGRAM INSPECTION - SUSQUEHANNA						1
1,2	10/16/2023	10/20/2023	IP 71114.02	000717	Alert and Notification System Testing	
1,2	10/16/2023	10/20/2023	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
1,2	10/16/2023	10/20/2023	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
1,2	10/16/2023	10/20/2023	IP 71114.05	000720	Maintenance of Emergency Preparedness	
1,2	10/16/2023	10/20/2023	IP 71151	001397	Performance Indicator Verification	
Fire Protection - Susquehanna						3
1,2	10/30/2023	11/3/2023	IP 71111.21N.05	001646	Fire Protection Team Inspection (FPTI)	

Site Inspection Activity Plan

1,2	11/13/2023	11/17/2023	IP 71111.21N.05	001646	Fire Protection Team Inspection (FPTI)	
Susquehanna Requal Inspection with P/F Results						2
1,2	11/26/2023	12/1/2023	IP 71111.11A	000703	Licensed Operator Requalification Program and Licensed Operator Performance	
1,2	11/26/2023	12/1/2023	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance	
Commercial Grade Dedication - Susquehanna						3
1,2	1/29/2024	2/2/2024	IP 71111.21N.03	001808	Commercial Grade Dedication	
1,2	2/12/2024	2/16/2024	IP 71111.21N.03	001808	Commercial Grade Dedication	
RP - 71124.04 Dosimetry						1
1,2	2/5/2024	2/9/2024	IP 71124.04	000728	Occupational Dose Assessment	
RP - 71124.01 Rad Hazards						1
1,2	3/25/2024	3/29/2024	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
Inservice Inspection - Susquehanna Unit 1						1
1	4/1/2024	4/5/2024	IP 71111.08G	000701	Inservice Inspection Activities (BWR)	
FORCE-ON-FORCE PLANNING AND EXERCISE WEEKS - SQ						5
1,2	7/29/2024	8/2/2024	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
1,2	8/19/2024	8/23/2024	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
PI&R Biennial Team Inspection - SQ						4
1,2	9/16/2024	9/20/2024	IP 71152B	000747	Problem Identification and Resolution	
1,2	9/30/2024	10/4/2024	IP 71152B	000747	Problem Identification and Resolution	
EP Exercise Inspection - Susquehanna						5
1,2	10/21/2024	10/25/2024	IP 71114.01	000716	Exercise Evaluation	
1,2	10/21/2024	10/25/2024	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
1,2	10/21/2024	10/25/2024	IP 71151	001397	Performance Indicator Verification	
Cyber Security - Susquehanna						4
1,2	10/28/2024	11/1/2024	IP 71130.10	000741	Cybersecurity	
RP - 71124.06 RETS and 71151 PIV						1
1,2	11/4/2024	11/8/2024	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
1,2	11/4/2024	11/8/2024	IP 71151	000746	Performance Indicator Verification	
Access Control, Equipment Testing and Maintenance, Training, SPR						3
1,2	12/2/2024	12/6/2024	IP 71130.02	000734	Access Control	
1,2	12/2/2024	12/6/2024	IP 71130.04	000736	Equipment Performance, Testing, and Maintenance	
1,2	12/2/2024	12/6/2024	IP 71130.07	000739	Security Training	
1,2	12/2/2024	12/6/2024	IP 71130.09	001656	Security Plan Changes	
1,2	12/2/2024	12/6/2024	IP 71151	001338	Performance Indicator Verification	