



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION I  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PA 19406-2713

March 4, 2019

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

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (REPORTS 05000387/2018006 AND 05000388/2018006)**

Dear Mr. 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, 2018, through December 31, 2018. 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 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 your facility.

The enclosed inspection plan lists the inspections scheduled through December 31, 2020. This updated inspection plan now includes planned security inspections which were formerly transmitted under separate correspondence. 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. You should be aware that the agency is pursuing potential changes to the ROP, including changes to engineering inspections (SECY-18-0113, "Recommendations for Modifying the Reactor Oversight Process Engineering Inspections"). Should these changes to the ROP be implemented, the engineering and other region-based inspections are subject to change in scope, as well as schedule, beginning in January 2020. Furthermore, all 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 addition to baseline inspections, the NRC will conduct Temporary Instruction 2515/191, "Inspection of Licensee's Responses to Order EA-12-049, EA-12-051, and Emergency Preparedness Info Request," in June 2019; Inspection Procedure 60855.1, "Operation of an ISFSI at Operating Plant," in September 2019; and Inspection Procedure 71003, "Post Approval Site Inspection for License Renewal," (Unit 1) in April 2020.

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,

*/RA/*

Jonathan E. Greives, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Docket Nos. 50-387 and 50-388  
License Nos. NPF-14 and NPF-22

Enclosure:  
Inspection Plan

cc w/encl: Distribution via ListServ

SUBJECT: ANNUAL ASSESSMENT LETTER FOR SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (REPORTS 05000387/2018006 AND 05000388/2018006) DATED MARCH 4, 2019

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<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive Sensitive		<input checked="" type="checkbox"/> Publicly Available Non-Publicly Available	
OFFICE	RI/DRP	RI/DRP			
NAME	GCroon via email	JGreives			
DATE	2/28/19	3/4/19			

OFFICIAL RECORD COPY

# IP 22 Inspection Activity Plan Report

## Susquehanna

01/01/2019 - 12/31/2020

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>4th Quarter Site Support</b>						10
1, 2	10/01/2018	02/12/2019	IP 71152	000748	Problem Identification and Resolution	
1, 2	10/01/2018	02/12/2019	IP 71153	000749	Followup of Events and Notices of Enforcement Discretion	
<b>ACCESS CONTROL, EQUIP PERF, TRAINING</b>						3
1, 2	02/11/2019	02/15/2019	IP 71130.02	000734	Access Control	
1, 2	02/11/2019	02/15/2019	IP 71130.04	000736	Equipment Performance, Testing, and Maintenance	
1, 2	02/11/2019	02/15/2019	IP 71130.07	000739	Security Training	
1, 2	02/11/2019	02/15/2019	IP 71151	001338	Performance Indicator Verification	
<b>HP</b>						1
1, 2	02/25/2019	03/01/2019	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	02/25/2019	03/01/2019	IP 71124.02	000726	Occupational ALARA Planning and Controls	
<b>INSERVICE INSPECTION - UNIT 2</b>						1
2	03/31/2019	03/31/2019	IP 71111.08G	000701	Inservice Inspection Activities (BWR)	
<b>HP</b>						1
1, 2	04/08/2019	04/12/2019	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	04/08/2019	04/12/2019	IP 71124.02	000726	Occupational ALARA Planning and Controls	
<b>REMP</b>						1
1, 2	05/20/2019	05/24/2019	IP 71124.07	000731	Radiological Environmental Monitoring Program	
<b>TI-191 FUKUSHIMA LESSONS-LEARNED</b>						3
1, 2	06/24/2019	06/28/2019	TI 2515/191	000509	Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012	
<b>SUSQUEHANNA INITIAL OL EXAM</b>						4
1, 2	07/28/2019	08/02/2019	OV	000956	VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
1, 2	08/25/2019	09/06/2019	EXAD	000500	LICENSE EXAM ADMINISTRATION (EXAD)	
<b>ISFSI OPERATIONAL INSPECTION</b>						2
1, 2	09/09/2019	09/13/2019	IP 60855.1	000590	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
<b>DESIGN BASES ASSURANCE INSP - TEAMS</b>						6
1, 2	09/15/2019	09/21/2019	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

# IP 22 Inspection Activity Plan Report

## Susquehanna

01/01/2019 - 12/31/2020

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>DESIGN BASES ASSURANCE INSP - TEAMS</b>						<b>6</b>
1, 2	09/29/2019	10/05/2019	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	
<b>EP PROGRAM INSPECTION</b>						<b>2</b>
1, 2	10/21/2019	10/25/2019	IP 71114.02	000717	Alert and Notification System Testing	
1, 2	10/21/2019	10/25/2019	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
1, 2	10/21/2019	10/25/2019	IP 71114.05	000720	Maintenance of Emergency Preparedness	
1, 2	10/21/2019	10/25/2019	IP 71151	001397	Performance Indicator Verification	
<b>HP</b>						<b>1</b>
1, 2	11/04/2019	11/08/2019	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	11/04/2019	11/08/2019	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	11/04/2019	11/08/2019	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	11/04/2019	11/08/2019	IP 71124.04	000728	Occupational Dose Assessment	
1, 2	11/04/2019	11/08/2019	IP 71124.05	000729	Radiation Monitoring Instrumentation	
1, 2	11/04/2019	11/08/2019	IP 71151	000746	Performance Indicator Verification	
<b>SQ REQUAL INSP WITH P/F RESULTS</b>						<b>2</b>
1, 2	11/17/2019	11/22/2019	IP 71111.11A	000703	Licensed Operator Requalification Program and Licensed Operator Performance (Annual)	
1, 2	11/17/2019	11/22/2019	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance (Biennial)	
<b>Radwaste</b>						<b>1</b>
1, 2	03/09/2020	03/13/2020	IP 71124.08	000732	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
<b>License Renewal Phase 1 - Unit 1</b>						<b>1</b>
1	04/05/2020	04/11/2020	IP 71003	000687	Post-Approval Site Inspection for License Renewal	
<b>ISI - UNIT 1</b>						<b>1</b>
1	04/05/2020	04/11/2020	IP 71111.08G	000701	Inservice Inspection Activities (BWR)	
<b>HP</b>						<b>1</b>
1, 2	04/13/2020	04/17/2020	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	04/13/2020	04/17/2020	IP 71124.02	000726	Occupational ALARA Planning and Controls	

This report does not include INPO and OUTAGE activities.  
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# IP 22 Inspection Activity Plan Report

## Susquehanna

01/01/2019 - 12/31/2020

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>Access Control, Protective Strategy, TSR</b>						4
1, 2	06/15/2020	06/19/2020	IP 71130.02	000734	Access Control	
1, 2	06/15/2020	06/19/2020	IP 71130.05	000737	Protective Strategy Evaluation	
1, 2	06/15/2020	06/19/2020	IP 71130.14	000743	Review of Power Reactor Target Sets	
1, 2	06/15/2020	06/19/2020	IP 71151	001338	Performance Indicator Verification	
<b>HP</b>						1
1, 2	07/06/2020	07/10/2020	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	07/06/2020	07/10/2020	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	07/06/2020	07/10/2020	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	07/06/2020	07/10/2020	IP 71124.04	000728	Occupational Dose Assessment	
1, 2	07/06/2020	07/10/2020	IP 71124.05	000729	Radiation Monitoring Instrumentation	
<b>PI&amp;R Biennial Team Inspection</b>						4
1, 2	07/13/2020	07/17/2020	IP 71152B	000747	Problem Identification and Resolution	
1, 2	07/27/2020	07/31/2020	IP 71152B	000747	Problem Identification and Resolution	
<b>TRIENNIAL FIRE PROTECTION</b>						4
1, 2	09/21/2020	09/25/2020	IP 71111.05T	000696	Fire Protection (Triennial)	
1, 2	10/05/2020	10/09/2020	IP 71111.05T	000696	Fire Protection (Triennial)	
<b>RETS</b>						1
1, 2	10/05/2020	10/09/2020	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
<b>SUSQUEHANNA EP EXERCISE INSPECTION</b>						5
1, 2	10/19/2020	10/23/2020	IP 71114.01	000716	Exercise Evaluation	
1, 2	10/19/2020	10/23/2020	IP 71151	001397	Performance Indicator Verification	
<b>HP</b>						1
1, 2	12/14/2020	12/18/2020	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	12/14/2020	12/18/2020	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	12/14/2020	12/18/2020	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	12/14/2020	12/18/2020	IP 71124.04	000728	Occupational Dose Assessment	
1, 2	12/14/2020	12/18/2020	IP 71124.05	000729	Radiation Monitoring Instrumentation	