



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

March 3, 2020

Mr. Bryan C. Hanson
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Rd.
Warrenville, IL 60555

SUBJECT: ANNUAL ASSESSMENT LETTER FOR PEACH BOTTOM ATOMIC POWER
STATION, UNITS 2 AND 3 (REPORT 05000277/2019006 AND
05000278/2019006)

Dear Mr. Hanson:

The NRC has completed its end-of-cycle performance assessment of Peach Bottom Atomic Power Station, Units 2 and 3, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2019 through December 31, 2019. 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 Peach Bottom Atomic Power Station, Units 2 and 3 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 Peach Bottom Atomic Power Station, Units 2 and 3. Note that Peach Bottom Atomic Power Station, Units 2 and 3, returned to the Licensee Response Column on June 27, 2019 following a supplemental inspection documented in NRC Inspection Report 05000277/2019040 and 05000278/2019040 (ML19178A008).

The enclosed inspection plan lists the inspections scheduled through December 31, 2021. 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") and other changes to the baseline inspection program described in SECY-19-0067, "Recommendations for Enhancing the Reactor Oversight Process." 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. 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 also conduct Inspection Procedure (IP) 81311, "Physical Security Requirements for Independent Spent Fuel Storage Installations," in April 2020; IP 60854.1, "Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants," in March through May 2020; IP 60855.1, "Operation of an ISFSI at Operating Plant," in June 2020; and Temporary Instruction (TI) 2515/193, "Hardened Containment Vent," in May 2020. Lastly, during this period the NRC will perform inspections per TI 2515/194, "Inspection of the Licensee's Implementation of Industry Initiative Associated with the Open Phase Condition Design Vulnerability in Electrical Power Systems (NRC Bulletin 2012-01)."

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."

Please contact Jonathan Greives at (610) 337-5337 with any questions you have regarding this letter.

Sincerely,

X /RA/

Signed by: Daniel S. Collins
Daniel S. Collins, Director
Division of Reactor Projects

Docket Nos. 50-277 and 50-278
License Nos. DPR-44 and DPR-56

Enclosure:
Inspection/Activity Plan

cc w/ encl: Distribution via LISTSERV®

SUBJECT: ANNUAL ASSESSMENT LETTER FOR PEACH BOTTOM ATOMIC POWER
STATION, UNITS 2 AND 3 (REPORT 05000277/2019006 AND
05000278/2019006) DATED MARCH 3, 2020

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IP 22 Inspection Activity Plan Report

Peach Bottom

01/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
Access Authorization and Fitness for Duty-PB						3
2, 3	02/03/2020	02/06/2020	IP 71151	001338	Performance Indicator Verification	
ISFSI Dry Run & Operational Inspection - PB						2
2, 3	03/16/2020	03/20/2020	IP 60854.1	000589	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
2, 3	03/30/2020	04/03/2020	IP 60854.1	000589	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
2, 3	04/20/2020	04/24/2020	IP 60854.1	000589	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
2, 3	05/11/2020	05/15/2020	IP 60854.1	000589	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
2, 3	06/01/2020	06/05/2020	IP 60855.1	000590	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
TI-194 Open Phase Condition Inspection-PB						2
2, 3	04/13/2020	04/17/2020	TI 2515/194	000512	Inspection of the Licensee's Implementation of Industry Initiative Associated With the Open Phase Condition Design Vulnerabilities In Electric Power Systems (NRC Bulletin 2012-01)	
FY20 PEACH BOTTOM Initial Exam						3
2, 3	04/19/2020	04/25/2020	OV	000956	VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
2, 3	05/24/2020	06/06/2020	EXAD	000500	LICENSE EXAM ADMINISTRATION (EXAD)	
EP EXERCISE INSPECTION - PEACH BOTTOM						5
2, 3	04/20/2020	04/24/2020	IP 71114.01	000716	Exercise Evaluation	
2, 3	04/20/2020	04/24/2020	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
2, 3	04/20/2020	04/24/2020	IP 71151	001397	Performance Indicator Verification	
ISFSI- Security Inspection-PB						2
2, 3	04/20/2020	04/24/2020	IP 71130.09	001656	Security Plan Changes	
2, 3	04/20/2020	04/24/2020	IP 81311	000831	Physical Security Requirements for Independent Spent Fuel Storage Installations	
Resp Protection & Dose Assessment (71124.03/71124.04)						1
2, 3	04/27/2020	05/01/2020	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
2, 3	04/27/2020	05/01/2020	IP 71124.04	000728	Occupational Dose Assessment	

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

Peach Bottom

01/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
TI-193 Hardened Containment Vent						2
2, 3	05/04/2020	05/08/2020	TI 2515/193	000511	Inspection of the Implementation of EA-13-109: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions	
Rad Monitoring Instrumentation (71124.05)						1
2, 3	06/08/2020	06/12/2020	IP 71124.05	000729	Radiation Monitoring Instrumentation	
Design Basis Assurance Inspection - Teams - Peach Bottom Units 2 and 3						6
2, 3	07/13/2020	07/19/2020	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	
2, 3	07/27/2020	08/02/2020	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	
FORCE-ON-FORCE PLANNING AND EXERCISE WEEKS - PB						6
2, 3	07/27/2020	07/31/2020	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
2, 3	08/17/2020	08/21/2020	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
REMP (71124.07)						1
2, 3	09/21/2020	09/25/2020	IP 71124.07	000731	Radiological Environmental Monitoring Program	
ISI - UNIT 2						1
2	10/26/2020	10/30/2020	IP 71111.08G	000701	Inservice Inspection Activities (BWR)	
Rad Hazards (71124.01) & PIs (71151)						1
2, 3	10/26/2020	10/30/2020	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
2, 3	10/26/2020	10/30/2020	IP 71151	000746	Performance Indicator Verification	
EP Program Inspection - Peach Bottom						1
2, 3	02/08/2021	02/12/2021	IP 71114.02	000717	Alert and Notification System Testing	
2, 3	02/08/2021	02/12/2021	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
2, 3	02/08/2021	02/12/2021	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
2, 3	02/08/2021	02/12/2021	IP 71114.05	000720	Maintenance of Emergency Preparedness	
2, 3	02/08/2021	02/12/2021	IP 71151	001397	Performance Indicator Verification	
Access Control, Equipment Testing and Maintenance, Training, SPR						3
2, 3	04/05/2021	04/09/2021	IP 71130.09	001656	Security Plan Changes	
2, 3	04/05/2021	04/09/2021	IP 71151	001338	Performance Indicator Verification	

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IP 22 Inspection Activity Plan Report

Peach Bottom

01/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
FY2021 Peach Bottom Initial Examination						5
2, 3	05/02/2021	05/08/2021	OV	000956	VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
2, 3	05/30/2021	06/05/2021	EXAD	000500	LICENSE EXAM ADMINISTRATION (EXAD)	
INSERVICE INSPECTION - UNIT 3						1
3	10/24/2021	10/30/2021	IP 71111.08G	000701	Inservice Inspection Activities (BWR)	
Rad Hazards (71124.01) and Pls (71151)						1
2, 3	10/25/2021	10/29/2021	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
2, 3	10/25/2021	10/29/2021	IP 71151	000746	Performance Indicator Verification	