



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

March 4, 2019

Mr. Bryan C. Hanson
Senior VP, Exelon Generation Company, LLC
President and CNO, Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR BYRON STATION, UNITS 1 AND 2
(REPORT 05000454/2018006 AND 05000455/2018006)**

Dear Mr. Hanson:

The NRC has completed its end-of-cycle performance assessment of Byron Station, 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 Byron Station, Units 1 and 2, during the most recent quarter was within the Licensee Response Column, the highest performance category of the NRC's Reactor Oversight Process (ROP) Action Matrix, 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. 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.

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 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Please contact me at 630-829-9707 with any questions you have regarding this letter.

Sincerely,

/RA/

Hironori Peterson, Chief
Branch 3
Division of Reactor Projects

Docket Nos. 50-454; 50-455
License Nos. NPF-37; NPF-66

Enclosure:
Inspection Plan

cc: Distribution via LISTSERV®

Letter to Bryan Hanson from Hironori Peterson dated March 4, 2019

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BYRON STATION, UNITS 1 AND 2
(REPORT 05000454/2018006 AND 05000455/2018006)

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IP 22 Inspection Activity Plan Report

Byron

03/04/2019 - 12/31/2020

Unit	Start	End	Activity	CAC	Title	Staff Count
Triennial Fire Protection Inspection						3
1, 2	02/04/2019	03/08/2019	IP 71111.05T	000696	Fire Protection (Triennial)	
Inservice Inspection Unit 2						1
2	04/08/2019	04/26/2019	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
Radiation Protection Baseline Inspection						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 71151	000746	Performance Indicator Verification	
Security Baseline Inspection						1
1, 2	05/20/2019	05/24/2019	IP 71130.07	000739	Security Training	
1, 2	05/20/2019	05/24/2019	IP 71151	001338	Performance Indicator Verification	
Triennial Heat Sink Inspection						2
1, 2	07/08/2019	07/12/2019	IP 71111.07T	000700	Heat Sink Performance -Triennial	
Radiation Protection Baseline Inspection						2
1, 2	07/08/2019	07/12/2019	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
1, 2	07/08/2019	07/12/2019	IP 71124.07	000731	Radiological Environmental Monitoring Program	
1, 2	07/08/2019	07/12/2019	IP 71151	000746	Performance Indicator Verification	
Biennial Problem Identification and Resolution Inspection						4
1, 2	08/05/2019	08/23/2019	IP 71152B	000747	Problem Identification and Resolution	
2019 NRC Developed Exam Byron						4
1, 2	08/18/2019	08/23/2019	OV	000956	VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
1, 2	09/29/2019	10/04/2019	OV	000956	VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
1, 2	10/27/2019	11/01/2019	EXAD	000500	LICENSE EXAM ADMINISTRATION (EXAD)	
1, 2	11/03/2019	11/08/2019	EXAD	000500	LICENSE EXAM ADMINISTRATION (EXAD)	
Design Bases Assurance Inspection (Programs)						3
1, 2	08/26/2019	09/13/2019	IP 71111.21N	000714	Design Bases Assurance Inspection (Programs)	
Force-on-Force Planning and Exercises						6
1, 2	09/09/2019	09/13/2019	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	
1, 2	09/30/2019	10/04/2019	IP 71130.03	000735	Contingency Response - Force-On-Force Testing	

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

Byron

03/04/2019 - 12/31/2020

Unit	Start	End	Activity	CAC	Title	Staff Count
Radiation Protection Baseline						1
1, 2	09/16/2019	09/20/2019	IP 71124.02	000726	Occupational ALARA Planning and Controls	
Emergency Preparedness Exercise Inspection / Performance Indicator Verification						4
1, 2	10/28/2019	11/01/2019	IP 71114.01	000716	Exercise Evaluation	
1, 2	10/28/2019	11/01/2019	IP 71114.06	000721	Drill Evaluation	
1, 2	10/28/2019	11/01/2019	IP 71114.08	000723	Exercise Evaluation □ Scenario Review	
1, 2	10/28/2019	11/01/2019	IP 71151	001397	Performance Indicator Verification	
Corporate Security Baseline Inspection						4
1, 2	01/14/2020	01/16/2020	IP 71130.08	000740	Fitness For Duty Program	
Radiation Protection Baseline Inspection						1
1, 2	02/03/2020	02/07/2020	IP 71124.05	000729	Radiation Monitoring Instrumentation	
Security Baseline Inspection						1
1, 2	02/03/2020	02/07/2020	IP 71130.02	000734	Access Control	
1, 2	02/03/2020	02/07/2020	IP 71130.08	000740	Fitness For Duty Program	
Inservice inspection Byron Unit 1						1
1	03/09/2020	03/27/2020	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
Radiation Protection Baseline Inspection						1
1, 2	03/16/2020	03/20/2020	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
Security Baseline Inspection						1
1, 2	04/27/2020	05/01/2020	IP 71130.04	000736	Equipment Performance, Testing, and Maintenance	
1, 2	04/27/2020	05/01/2020	IP 71151	001338	Performance Indicator Verification	
Radiation Protection Baseline Inspection						1
1, 2	07/13/2020	07/17/2020	IP 71124.08	000732	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1, 2	07/13/2020	07/17/2020	IP 71151	000746	Performance Indicator Verification	
Security Baseline Inspection						2
1, 2	07/13/2020	07/17/2020	IP 71130.05	000737	Protective Strategy Evaluation	

IP 22 Inspection Activity Plan Report

Byron

03/04/2019 - 12/31/2020

Unit	Start	End	Activity	CAC	Title	Staff Count
Evaluations of Changes, Tests, and Experiments Inspection						3
1, 2	08/31/2020	09/04/2020	IP 71111.17T	000709	Evaluations of Changes, Tests, and Experiments	
Inservice inspection Byron Unit 2						1
2	10/05/2020	10/22/2020	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
Radiation Protection Baseline Inspection						1
1, 2	10/12/2020	10/16/2020	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	10/12/2020	10/16/2020	IP 71151	000746	Performance Indicator Verification	
Byron Biennial Licensed Operator Requalification Program Inspection						2
1, 2	11/16/2020	11/20/2020	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance (Biennial)	
Radiation Protection Baseline Inspection						1
1, 2	11/30/2020	12/04/2020	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	11/30/2020	12/04/2020	IP 71124.04	000728	Occupational Dose Assessment	