



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

March 2, 2018

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 05000454/2017006 AND 05000455/2017006)**

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, 2017 through December 31, 2017. 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 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, 2019. 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. The inspections listed during the last 12 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.

Temporary Instruction 194, "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)," is planned to start the week of April 2, 2018.

This letter and its enclosure 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 Eric Duncan at 630-829-9620 with any questions you have regarding this letter.

Sincerely,

*/RA/*

Eric R. Duncan, 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 C. Hanson from Eric Duncan dated March 2, 2018

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BYRON STATION, UNITS 1 AND 2  
(REPORT 05000454/2017006 AND 05000455/2017006)

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# IP 22 Inspection Activity Plan Report

## Byron

03/01/2018 - 12/31/2019

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>SECURITY BASELINE INSPECTION</b>						1
1, 2	03/05/2018	03/09/2018	IP 71130.01	000733	Access Authorization	
1, 2	03/05/2018	03/09/2018	IP 71130.02	000734	Access Control	
1, 2	03/05/2018	03/09/2018	IP 71151	001338	Performance Indicator Verification	
<b>ISFSI Cask Loading Inspection</b>						2
1, 2	03/26/2018	03/30/2018	IP 60855.1	000590	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
<b>Open Phase TI-194 for Byron</b>						2
1, 2	04/02/2018	04/06/2018	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)	
<b>CYBER SECURITY INSPECTION</b>						5
1, 2	05/21/2018	06/08/2018	IP 71130.10P	000741	Cyber Security	
<b>RADIATION PROTECTION BASELINE INSPECTION</b>						1
1, 2	07/23/2018	07/27/2018	IP 71124.08	000732	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
<b>INSERVICE INSPECTION UNIT 1</b>						1
1	09/10/2018	09/28/2018	IP 71111.08P	000702	Inservice Inspection Activities - PWR	
<b>RADIATION PROTECTION BASELINE INSPECTION</b>						2
1, 2	09/17/2018	09/21/2018	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	09/17/2018	09/21/2018	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	09/17/2018	09/21/2018	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	09/17/2018	09/21/2018	IP 71124.04	000728	Occupational Dose Assessment	
1, 2	09/17/2018	09/21/2018	IP 71151	000746	Performance Indicator Verification	
<b>SECURITY BASELINE INSPECTION</b>						2
1, 2	09/17/2018	09/21/2018	IP 71130.04	000736	Equipment Performance, Testing, and Maintenance	
1, 2	09/17/2018	09/21/2018	IP 71130.14	000743	Review of Power Reactor Target Sets	
<b>EP BASELINE INSPECTION / PI VERIFICATION</b>						1
1, 2	10/01/2018	10/05/2018	IP 71114.02	000717	Alert and Notification System 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

03/01/2018 - 12/31/2019

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>EP BASELINE INSPECTION / PI VERIFICATION</b>						1
1, 2	10/01/2018	10/05/2018	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
1, 2	10/01/2018	10/05/2018	IP 71114.05	000720	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	10/01/2018	10/05/2018	IP 71151	001397	Performance Indicator Verification	
<b>BIENNIAL REQUAL PROGRAM INSPECTION</b>						2
1, 2	10/22/2018	10/26/2018	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance - Biennial	
<b>INITIAL EXAM JAN 2019</b>						3
1	12/10/2018	12/14/2018	OV	000956	VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
1, 2	01/06/2019	01/25/2019	EXAD	000500	LICENSE EXAM ADMINISTRATION (EXAD)	
<b>TRIENNIAL FIRE PROTECTION INSPECTION</b>						3
1	02/04/2019	03/08/2019	IP 71111.05T	000696	Fire Protection (Triennial)	
<b>SECURITY BASELINE INSPECTION</b>						1
1, 2	02/25/2019	03/01/2019	IP 71130.02	000734	Access Control	
1, 2	02/25/2019	03/01/2019	IP 71130.06	000738	Protection of Safeguards Information	
<b>INSERVICE INSPECTION UNIT 2</b>						1
2	04/08/2019	04/26/2019	IP 71111.08P	000702	Inservice Inspection Activities - PWR	
<b>RADIATION PROTECTION BASELINE INSPECTION</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 71151	000746	Performance Indicator Verification	
<b>SECURITY BASELINE INSPECTION</b>						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	
<b>RADIATION PROTECTION BASELINE INSPECTION</b>						2
1, 2	06/17/2019	06/21/2019	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
1, 2	06/17/2019	06/21/2019	IP 71124.07	000731	Radiological Environmental Monitoring Program	
<b>BIENNIAL PI&amp;R INSPECTION</b>						4
1, 2	06/24/2019	07/12/2019	IP 71152B	000747	Problem Identification and Resolution	

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# IP 22 Inspection Activity Plan Report

## Byron

03/01/2018 - 12/31/2019

Unit	Start	End	Activity	CAC	Title	Staff Count
<b>TRIENNIAL HEAT SINK INSPECTION</b>						<b>2</b>
1, 2	07/29/2019	08/02/2019	IP 71111.07T	000700	Heat Sink Performance -Triennial	
<b>2019 NRC Dev Exam BYRON</b>						<b>3</b>
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)	
<b>PRE-ONSITE VALIDATION OF NRC-WRITTEN EXA</b>						<b>2</b>
1	08/19/2019	08/23/2019	PREP	000959	(PREP)	
<b>DBA PROGRAM</b>						<b>3</b>
1, 2	08/26/2019	09/13/2019	IP 71111.21N	000714	Design Bases Assurance Inspection (Programs)	
<b>FORCE-ON-FORCE PLANNING AND EXERCISES</b>						<b>8</b>
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	
<b>RP Baseline</b>						<b>1</b>
1, 2	09/16/2019	09/20/2019	IP 71124.02	000726	Occupational ALARA Planning and Controls	
<b>EP EXERCISE INSPECTION / PI VERIFICATION</b>						<b>2</b>
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 71151	001397	Performance Indicator Verification	