



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

March 1, 2017

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 05000454/2016006 AND 05000455/2016006)**

Dear Mr. Hanson:

The NRC has completed its end-of-cycle performance assessment of Byron Units 1 and 2, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2016, through December 31, 2016. 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 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, 2018. 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. This inspection plan does not include the plan for security-related inspections, which will be sent via separate, non-publicly available correspondence.

B. Hanson

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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 Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 630-829-9620 with any questions you have regarding this letter.

Sincerely,

/RA/

Eric 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®

B. Hanson

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Letter to Bryan Hanson from Eric Duncan dated March 1, 2017

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BYRON STATION UNITS 1 AND 2
(REPORT 05000454/2016006 AND 05000455/2016006)

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Byron
Inspection / Activity Plan
03/01/2017 - 12/31/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			BI 50.59 - TRIENNIAL 5059 INSPECTION		3
1, 2	05/15/2017	05/19/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			ISI - INSERVICE INSPECTION UNIT 1		1
1	02/27/2017	03/24/2017	IP 7111108P	Inservice Inspection Activities - PWR	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	03/06/2017	03/10/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	03/06/2017	03/10/2017	IP 71124.02	Occupational ALARA Planning and Controls	
			BI EP - EP EXERCISE INSPECTION / PI VERIFICATION		5
1, 2	07/24/2017	07/28/2017	IP 7111401	Exercise Evaluation	
1, 2	07/24/2017	07/28/2017	IP 7111406	Drill Evaluation	
1, 2	07/24/2017	07/28/2017	IP 7111408	Exercise Evaluation – Scenario Review	
1, 2	07/24/2017	07/28/2017	IP 71151	Performance Indicator Verification	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		2
1	08/14/2017	08/18/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	08/14/2017	08/18/2017	IP 71124.07	Radiological Environmental Monitoring Program	
1	08/14/2017	08/18/2017	IP 71151	Performance Indicator Verification	
			BI PI&R - BIENNIAL PI&R INSPECTION		4
1, 2	08/07/2017	08/25/2017	IP 71152B	Problem Identification and Resolution	
			FLEX - FLEX AND SFP FOLLOWUP		4
1, 2	08/28/2017	09/01/2017	IP 2515/191	Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	10/10/2017	10/13/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	10/10/2017	10/13/2017	IP 71124.04	Occupational Dose Assessment	
			ISI - INSERVICE INSPECTION UNIT 2		1
2	10/02/2017	10/23/2017	IP 7111108P	Inservice Inspection Activities - PWR	
			BI ENG - DBA TEAM INSPECTION		9
1, 2	01/15/2018	02/02/2018	IP 7111121M	Component Design Bases Inspection (Teams)	
			OL PREP - INITIAL PREP DEC 2017		4
1	11/13/2017	11/17/2017	W90369	OL - INITIAL EXAM - 2018 JAN-FEB - BYRON	
			OL EXAM - INITIAL EXAM DEC 2017		3
1	12/04/2017	12/15/2017	W90369	OL - INITIAL EXAM - 2018 JAN-FEB - BYRON	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	01/29/2018	02/02/2018	IP 71124.05	Radiation Monitoring Instrumentation	

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

Byron
Inspection / Activity Plan
03/01/2017 - 12/31/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			ISFSI - ISFSI CASK LOADING INSPECTION		1
1, 2	04/01/2018	05/01/2018	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	07/23/2018	07/27/2018	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			ISI - INSERVICE INSPECTION UNIT 1		1
1	09/10/2018	09/28/2018	IP 7111108P	Inservice Inspection Activities - PWR	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		2
1	09/17/2018	09/21/2018	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	09/17/2018	09/21/2018	IP 71124.02	Occupational ALARA Planning and Controls	
1	09/17/2018	09/21/2018	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	09/17/2018	09/21/2018	IP 71124.04	Occupational Dose Assessment	
			BI OLRQ - BIENNIAL REQUAL PROGRAM INSPECTION		2
1, 2	11/19/2018	11/23/2018	IP 7111111B	Licensed Operator Requalification Program	

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