



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

March 4, 2015

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 05000454/2014001; 05000455/2014001)

Dear Mr. Hanson:

On February 12, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed its end-of-cycle performance review of Byron Station, Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from January 1, 2014, through December 31, 2014. 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 determined that overall, Byron Station, Units 1 and 2, operated in a manner that preserved public health and safety and met all cornerstone objectives. 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 (i.e., Green) safety significance, and all PIs indicated that your performance was within the nominal, 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 June 30, 2016. Routine inspections performed by the resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the mid-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. 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 security-related inspections, which will be sent via separate, non-publicly available correspondence.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public

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inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Website 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 R. Duncan, Chief  
Branch 3  
Division of Reactor Projects

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

Enclosure:  
Byron Station, Units 1 and 2  
Inspection/Activity Plan

cc w/encl: Distribution via LISTSERV®

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**Byron**  
**Inspection / Activity Plan**  
**03/01/2015 - 06/30/2016**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>BI CDBI - COMPONENT DESIGN BASES INSPECTION</b>		<b>6</b>
1	04/20/2015	05/22/2015	IP 7111121	Component Design Bases Inspection	
			<b>ISFSI - ISFSI</b>		<b>2</b>
1, 2	04/01/2015	04/29/2015	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	04/13/2015	04/17/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/13/2015	04/17/2015	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>BL EPX - EP EXERCISE INSPECTION / PI VERIFICATION</b>		<b>3</b>
1, 2	04/13/2015	04/17/2015	IP 7111407	Exercise Evaluation - Hostile Action (HA) Event	
1, 2	04/13/2015	04/17/2015	IP 7111408	Exercise Evaluation – Scenario Review	
1	04/13/2015	04/17/2015	IP 71151	Performance Indicator Verification	
			<b>PI&amp;R - BIENNIAL PI&amp;R INSPECTION</b>		<b>6</b>
1, 2	07/20/2015	08/07/2015	IP 71152B	Problem Identification and Resolution	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	08/17/2015	08/21/2015	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	08/17/2015	08/21/2015	IP 71151	Performance Indicator Verification	
			<b>BI ISI - INSERVICE INSPECTION UNIT 1</b>		<b>1</b>
1	09/14/2015	10/09/2015	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	10/19/2015	10/23/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	10/19/2015	10/23/2015	IP 71124.04	Occupational Dose Assessment	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	11/16/2015	11/20/2015	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>2</b>
1	04/25/2016	04/29/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/25/2016	04/29/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1	04/25/2016	04/29/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	04/25/2016	04/29/2016	IP 71124.04	Occupational Dose Assessment	
			<b>ISI - INSERVICE INSPECTION ON UNIT 2</b>		<b>1</b>
2	04/18/2016	05/20/2016	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>ENG BI - TRIENNIAL FIRE PROTECTION</b>		<b>3</b>
1, 2	06/06/2016	07/08/2016	IP 7111105T	Fire Protection [Triennial]	

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

**Byron**  
**Inspection / Activity Plan**  
**03/01/2015 - 06/30/2016**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>2</b>
1	06/27/2016	07/01/2016	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	06/27/2016	07/01/2016	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1	06/27/2016	07/01/2016	IP 71151	Performance Indicator Verification	

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