



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, ILLINOIS 60532-4352

January 3, 2020

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

SUBJECT: BYRON STATION – MATERIAL CONTROL AND ACCOUNTING PROGRAM  
INSPECTION REPORT 05000454/2019412 AND 05000455/2019412

Dear Mr. Hanson:

On November 18, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Byron Station and discussed the results of this inspection with Mr. K. McGuire and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

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."

Sincerely,

**/RA/**

Hironori Peterson, Chief  
Branch 3  
Division of Reactor Projects

Docket Nos. 05000454 and 05000455  
License Nos. NPF-37 and NPF-66

Enclosure:  
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to Bryan C. Hanson from Hironori Peterson dated January 3, 2020.

SUBJECT: BYRON STATION – MATERIAL CONTROL AND ACCOUNTING PROGRAM  
INSPECTION REPORT 05000454/2019412 AND 05000455/2019412

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**U.S. NUCLEAR REGULATORY COMMISSION**  
**Inspection Report**

Docket Numbers: 05000454 and 05000455

License Numbers: NPF-37 and NPF-66

Report Numbers: 05000454/2019412 and 05000455/2019412

Enterprise Identifier: I-2019-412-0019

Licensee: Exelon Generation Company, LLC

Facility: Byron Station

Location: Byron, IL

Inspection Dates: November 12, 2019 to November 18, 2019

Inspectors: C. Hunt, Resident Inspector

Approved By: Hironori Peterson, Chief  
Branch 3  
Division of Reactor Projects

Enclosure

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a material control and accounting program inspection at Byron Station, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

### **List of Findings and Violations**

No findings or violations of more than minor significance were identified.

### **Additional Tracking Items**

None.

## **INSPECTION SCOPES**

Unless otherwise noted, baseline security inspections were conducted in accordance with the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter 2201, "Security Inspection Program for Commercial Nuclear Power Reactors." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards. Publicly available IPs are located at: <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>.

## **SAFEGUARDS**

### 71130.11 - Material Control and Accounting (MC&A)

Inspectors evaluated the licensee's material control and accounting program through completion of the following inspection procedure elements:

#### Material Control and Accounting (MC&A) (15 Samples)

- (1) Special Nuclear Material Records (3 Samples)
- (2) Material Control and Accounting Programs and Procedures (2 Samples)
- (3) Physical Inventory of Special Nuclear Material (8 Samples)
- (4) Special Nuclear Material Reports (1 Sample)
- (5) Problem Identification and Resolution (1 Sample)

## **INSPECTION RESULTS**

No findings were identified.

## **EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On November 18, 2019, the inspectors presented the material control and accounting program inspection results to Mr. K. McGuire and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71130.11	Corrective Action Documents	AR 02715798	Moveable Incore Detector SNM Segregation	09/14/2016
		AR 04267943	Insert ID Did Not Patch Loading Plan	07/30/2019
	Miscellaneous		Moveable Incore Detector Drive 1E and 1F Repair	09/26/2018
			Thimble Plug 161D Reseating	01/24/2017
			Byron Station 2018 Physical Inventory or Special Nuclear Material (SNM)	07/25/2018
			Byron Station 2017 Physical Inventory or Special Nuclear Material (SNM)	07/20/2017
			Byron Station 2016 Physical Inventory or Special Nuclear Material (SNM)	07/28/2016
			2017 MID - Irradiated Specimen Movement	04/04/2017
			Byron Station 2019 Physical Inventory or Special Nuclear Material (SNM)	07/25/2019
	Procedures	NF-AA-30	Special Nuclear Material Control Process Description	5
		NF-AA-300	Special Nuclear Material Control and Accountability	22
		NF-AA-330	Special Nuclear Material Physical Inventories	15
		NF-AP-309	PWR Special Nuclear Material And Core Component Move Sheet Development	1
		NF-AP-330-5201	Special Nuclear Material Inventory Requirements For Byron and Braidwood	2
		OP-AA-390	Spent Fuel Pool Material Control	2
	Self-Assessments	AR 04197984	The Special Nuclear Material Control and Accounting Self-Assessment	08/07/2019