



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

August 31, 2016

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

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR CLINTON POWER STATION, UNIT 1  
(REPORT 05000461/2016005)

Dear Mr. Hanson:

On August 10, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Clinton Power Station, Unit 1. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2015 through June 30, 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 determined that overall, Clinton Power Station, Unit 1 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Clinton Power Station, Unit 1 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 NRC determined the performance at Clinton Power Station, Unit 1, during the first three quarters of the assessment period was within the Regulatory Response Column of the NRC's ROP Action Matrix due to a white finding related to your failure to properly design the replacement Division 3 shutdown service water pump and ensure the pump internals would not degrade under expected operating conditions as described in our letter to you dated August 11, 2015 (Adams Accession Number ML15223B382). Per Inspection Procedure 95001, the NRC completed a supplemental inspection for this issue on February 4, 2016, as documented in our letter to you dated March 17, 2016 (ML16077A312). The white finding was closed as of the end of the first quarter of 2016 in accordance with Inspection Manual Chapter 0305.

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half of the inspection plan are tentative and may be revised at the end-of-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.

The NRC staff completed Temporary Instruction 2515/191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans" at Clinton Power Station on August 9, 2016, to confirm full implementation of orders Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." Due to the recent inspection completion, the inspection results will be sent to you within 45 days of the exit meeting.

From July 1, 2015, to June 30, 2016, the NRC issued six Severity Level IV traditional enforcement violations associated with impeding the regulatory process. Although the NRC performed an inspection of five previously identified traditional enforcement violations during the assessment period using Inspection Procedure 92723, "Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period," we are concerned about the high number of traditional enforcement items identified since this inspection and the effectiveness of your previous corrective actions. Because sufficient time has not elapsed for you to develop corrective actions to address the recently identified traditional enforcement violations, the NRC's decision to conduct Inspection Procedure 92723 will be held in abeyance and re-visited at a later date.

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct quarterly assessment meetings and communicate changes in the assessment of licensee performance in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

B. Hanson

-3-

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 Karla Stoedter at 630-829-9731 with any questions you have regarding this letter.

Sincerely,

*/RA/*

Patrick L. Loudon, Director  
Division of Reactor Projects

Docket No. 50-461  
License No. NPF-62

Enclosure:  
Inspection Plan

cc: Distribution via LISTSERV®

B. Hanson

-3-

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 Karla Stoedter at 630-829-9731 with any questions you have regarding this letter.

Sincerely,

*/RA/*

Patrick L. Loudon, Director  
Division of Reactor Projects

Docket No. 50-461  
License No. NPF-62

Enclosure:  
Inspection Plan

cc: Distribution via LISTSERV®

DISTRIBUTION:

Jeremy Bowen  
RidsNrrDorlLp3-2 Resource  
RidsNrrPMClinton Resource  
RidsNrrDirslrib Resource  
Cynthia Pederson  
Darrell Roberts  
Richard Skokowski  
Allan Barker  
Carole Ariano  
Linda Linn  
DRSIII  
DRPIII  
[ROPAssessment.Resource@nrc.gov](mailto:ROPAssessment.Resource@nrc.gov)

ADAMS Accession Number: ML16239A310

Publicly Available     Non-Publicly Available     Sensitive     Non-Sensitive

To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII	RIII		
NAME	KStoedter:bw	PLoudon		
DATE	08/17/2016	08/26/2016		

**OFFICIAL RECORD COPY**

**Clinton**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>CDBI - COMPONENT DESIGN BASES INSPECTION</b>		<b>7</b>
1	10/31/2016	12/02/2016	IP 7111121	Component Design Bases Inspection	
			<b>ISFSI - ISFSI 72.212 REVIEW</b>		<b>2</b>
1	06/21/2016	09/05/2016	IP 60854.1	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
1	07/01/2016	09/01/2016	IP 60856	Review of 10 CFR 72.212(b) Evaluations	
1	07/01/2016	09/01/2016	IP 60856.1	Review of 10 CFR 72.212(b) Evaluations at Operating Plants	
1	09/06/2016	10/14/2016	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	09/26/2016	09/30/2016	IP 71124.07	Radiological Environmental Monitoring Program	
1	09/26/2016	09/30/2016	IP 71151	Performance Indicator Verification	
			<b>BI EP - EP BASELINE INSPECTION / PI VERIFICATION</b>		<b>1</b>
1	10/03/2016	10/07/2016	IP 7111402	Alert and Notification System Testing	
1	10/03/2016	10/07/2016	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1	10/03/2016	10/07/2016	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	10/03/2016	10/07/2016	IP 71151	Performance Indicator Verification	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	11/28/2016	12/02/2016	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>OL PREP - INIT PREP/CLINTON 2017</b>		<b>3</b>
1	01/03/2017	01/06/2017	W90343	OL - INITIAL EXAM - 2016 OCT-DEC - CLINTON	
			<b>OL EXAM - INIT EXAM/JAN FEB 2017</b>		<b>3</b>
1	01/30/2017	02/10/2017	W90343	OL - INITIAL EXAM - 2016 OCT-DEC - CLINTON	
			<b>BI MODS - MODIFICATIONS /50.59</b>		<b>3</b>
1	04/03/2017	04/21/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>2</b>
1	05/15/2017	05/19/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	05/15/2017	05/19/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	05/15/2017	05/19/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	05/15/2017	05/19/2017	IP 71124.04	Occupational Dose Assessment	
			<b>ISI - INSERVICE INSPECTION</b>		<b>1</b>
1	05/08/2017	05/29/2017	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	06/19/2017	06/23/2017	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	

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

**Clinton**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	07/10/2017	07/14/2017	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>BI HS - TRIENNIAL HEAT SINK INSPECTION</b>		<b>2</b>
1	07/17/2017	07/21/2017	IP 7111107T	Heat Sink Performance	
			<b>BI PI&amp;R - BIENNIAL PI&amp;R IINSPECTION</b>		<b>4</b>
1	09/11/2017	09/29/2017	IP 71152B	Problem Identification and Resolution	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	09/18/2017	09/22/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	09/18/2017	09/22/2017	IP 71151	Performance Indicator Verification	
			<b>OL-RQ - BIENNIAL REQUAL PROGRAM INSPECTION</b>		<b>2</b>
1	10/16/2017	10/20/2017	IP 7111111B	Licensed Operator Requalification Program	
			<b>BI EP - EP EXERCISE INSPECTION / PI VERIFICATION</b>		<b>5</b>
1	10/30/2017	11/03/2017	IP 7111401	Exercise Evaluation	
1	10/30/2017	11/03/2017	IP 7111406	Drill Evaluation	
1	10/30/2017	11/03/2017	IP 7111408	Exercise Evaluation – Scenario Review	
1	10/30/2017	11/03/2017	IP 71151	Performance Indicator Verification	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	04/02/2018	04/06/2018	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>ISI - INSERVICE INSPECTION UNIT 1</b>		<b>1</b>
1	05/07/2018	05/19/2018	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>2</b>
1	05/14/2018	05/18/2018	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	05/14/2018	05/18/2018	IP 71124.02	Occupational ALARA Planning and Controls	
1	05/14/2018	05/18/2018	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	05/14/2018	05/18/2018	IP 71124.04	Occupational Dose Assessment	

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