



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

January 3, 2022

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

SUBJECT: CLINTON POWER STATION – EMERGENCY PREPAREDNESS BIENNIAL
EXERCISE INSPECTION REPORT 05000461/2021501

Dear Mr. Rhoades:

On November 19, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Clinton Power Station. On November 18, 2021, the NRC inspectors discussed the results of this inspection with Mr. T. Chalmers 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,

A handwritten signature in dark ink, appearing to read "Patricia J. Pelke", is written over a horizontal line.

Signed by Pelke, Patricia
on 01/03/22

Patricia J. Pelke, Chief
Operations Branch
Division of Reactor Safety

Docket No. 05000461
License No. NPF-62

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to David Rhoades from Patricia J. Pelke dated January 3, 2022.

SUBJECT: CLINTON POWER STATION – EMERGENCY PREPAREDNESS BIENNIAL
EXERCISE INSPECTION REPORT 05000461/2021501

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000461

License Number: NPF-62

Report Number: 05000461/2021501

Enterprise Identifier: I-2021-501-0013

Licensee: Exelon Generation Company, LLC

Facility: Clinton Power Station

Location: Clinton, IL

Inspection Dates: November 15, 2021 to November 18, 2021

Inspectors: L. Cender, Health Physicist
E. Fernandez, Reactor Inspector
M. Garza, Emergency Preparedness Inspector
G. Hansen, Senior Emergency Preparedness Inspector

Approved By: Patricia J. Pelke, Chief
Operations Branch
Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an emergency preparedness biennial exercise inspection at Clinton Power 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

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." 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.

REACTOR SAFETY

71114.01 - Exercise Evaluation

Inspection Review (IP Section 02.01-02.11) (1 Sample)

- (1) The inspectors evaluated the biennial emergency plan exercise on November 16, 2021. The exercise scenario simulated an event at the Clinton Power Station that initiated with the declaration and notification of an Alert in response to on-site gaseous release that impeded access to equipment necessary for normal plant operations, cooldown, or shutdown. The scenario conditions simulated the escalation of the significance of the event, requiring the declaration of a Site Area Emergency, and then a General Emergency, as well as the development of Protective Action Recommendations that were communicated to the required state and local government agencies.

71114.08 - Exercise Evaluation Scenario Review

Inspection Review (IP Section 02.01 - 02.04) (1 Sample)

- (1) The inspectors reviewed and evaluated the proposed scenario for the biennial emergency plan exercise on October 13, 2021.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

EP01: Drill/Exercise Performance (DEP) Sample (IP Section 02.12) (1 Sample)

- (1) July 01, 2020 through June 30, 2021

EP02: Emergency Response Organization (ERO) Drill Participation (IP Section 02.13) (1 Sample)

- (1) July 01, 2020 through June 30, 2021

EP03: Alert And Notification System (ANS) Reliability Sample (IP Section 02.14) (1 Sample)

(1) July 01, 2020 through June 30, 2021

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, 2021, the inspectors presented the emergency preparedness biennial exercise inspection results to Mr. T. Chalmers and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71114.01	Corrective Action Documents	AR 04231567	EP ID 2019 NRC Graded Exercise – TSC Performance	03/21/2019
		AR 04365598	EP Clinton 2020 Off Year Exercise – Sim/CR Issues	08/26/2020
		AR 04365604	EP Clinton 2020 Off Year Exercise – TSC Issues	08/26/2020
		AR 04365607	EP Clinton 2020 Off Year Exercise – OSC Issues	08/26/2020
		AR 04365611	EP Clinton 2020 Off Year Exercise – Scenario/Control	08/26/2020
		AR 04365619	EP Clinton 2020 Off Year Exercise – Equipment Issues	08/26/2020
	Miscellaneous		Emergency Preparedness Drill and Exercise Reports (Sample)	11/01/2019-10/31/2021
			Clinton Biennial Exercise – Exercise Evaluation Results(PowerPoint Presentation)	11/18/2021
	Procedures	EP-AA-1000	Exelon Nuclear Standardized Radiological Emergency Plan	33
		EP-AA-1003	Exelon Nuclear Radiological Emergency Plan Annex for Clinton Station	33
		EP-AA-1003, Addendum	Clinton Station On-Shift Staffing Technical Basis	12
		EP-AA-1003, Addendum 3	Exelon Nuclear Emergency Action Levels for Clinton Station	3
		EP-AA-110-200	Dose Assessment	14
		EP-AA-110-301	Core Damage Assessment (BWR)	10
		EP-AA-111	Emergency Classification and Protective Action Recommendations	21
		EP-AA-112	Emergency Response Organization (ERO) / Emergency Response Facility Activation and Operation	22
		EP-AA-112-200	TSC Activation and Operation	14
		EP-AA-112-400	Emergency Operations Facility Activation and Operation	15
		EP-AA-113	Personnel Protective Actions	16
		EP-AA-114	Notifications	17
71114.08	Miscellaneous	RS-21-009 Attachment	Clinton Station 2021 Emergency Preparedness Biennial Exercise Scenario	09/16/2021
71151	Miscellaneous	NEI 99-02	Regulatory Assessment Performance Indicator Guideline	7
		NRC Performance	Alert Notification System Reliability	07/01/2021-06/30/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		Indicator Data Sheets		
		NRC Performance Indicator Data Sheets	Emergency Response Organization Readiness	07/01/2021-06/30/2021
		NRC Performance Indicator Data Sheets	Drill/Exercise Performance	07/01/2021-06/30/2021
		NRC Performance Indicator Data Sheets	Emergency Response Organization Drill Participation	07/01/2020-06/31/2021