



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

November 29, 2021

Mr. David P. Rhoades
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2 – EMERGENCY
PREPAREDNESS BIENNIAL EXERCISE INSPECTION REPORT
05000352/2021501 AND 05000353/2021501

Dear Mr. Rhoades:

On November 19, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Limerick Generating Station, Units 1 and 2 and discussed the results of this inspection with Mr. Michael Gillin, Plant Manager 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,

Fred L. Bower, III, Chief
Security, Emergency Preparedness and Incident
Response Branch
Division of Radiological Safety and Security

Docket Nos. 05000352 and 05000353
License Nos. NPF-39 and NPF-85

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2 – EMERGENCY
 PREPAREDNESS BIENNIAL EXERCISE INSPECTION REPORT
 05000352/2021501 AND 05000353/2021501 DATED NOVEMBER 29, 2021

DISTRIBUTION:

JGreives, DORS
 LCasey, DORS
 EGarcia, DORS
 AZiedonis, DORS, SRI
 LGrimes, DORS, RI
 NEsch, DORS, AA
 RWilliams, RI OEDO
 RKahler, NSIR
 ESchrader, NSIR
 RidsNrrPMLimerick Resource
 RidsNrrDorlLp1 Resource

DOCUMENT NAME: <https://usnrc.sharepoint.com/teams/RI.DRS.PSB.EP/Shared Documents/EP Inspection Reports/Limerick/Limerick EP EX IR 2021-501.docx>

ADAMS ACCESSION NUMBER: ML21333A030

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRSS	RI/DORS	RI/DRSS		
NAME	JDeBoer	JGreives	FBower		
DATE	11/24/21	11/24/21	11/24/21		

OFFICIAL RECORD COPY

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

Docket Numbers: 05000352 and 05000353

License Numbers: NPF-39 and NPF-85

Report Numbers: 05000352/2021501 and 05000353/2021501

Enterprise Identifier: I-2021-501-0003

Licensee: Exelon Generation Company, LLC

Facility: Limerick Generating Station, Units 1 and 2

Location: Sanatoga, PA 19464

Inspection Dates: November 15, 2021 to November 19, 2021

Inspectors: C. Crisden, Allegations/Enforcement Specialist
J. DeBoer, Senior Emergency Preparedness Inspector
K. Hussar, Senior Physical Security Inspector
J. Kulp, Senior Reactor Inspector
T. Setzer, Senior Operations Engineer

Approved By: Fred L. Bower, III, Chief
Security, Emergency Preparedness and Incident Response Branch
Division of Radiological Safety and Security

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an emergency preparedness biennial exercise inspection at Limerick Generating Station, Units 1 and 2, 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. The exercise scenario simulated a loss of reactor recirculation pumps, a manual reactor scram, fuel damage due to thermal hydraulic instabilities, a steam leak from high pressure coolant injection pump, and an airborne radiological release to the environment on November 16, 2021.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated the following submitted Emergency Action Level and Emergency Plan changes:
 - Screening 21-20, EP-AA-1008 Addendum 3, Emergency Action Levels for Limerick Generating Station, Revision 6

This evaluation does not constitute NRC approval.

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 biennial emergency plan exercise on October 14, 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) Unit Common for the period of July 1, 2020, to September 30, 2021

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

- (1) Unit Common for the period of July 1, 2020, to September 30, 2021

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

- (1) Unit Common for the period of July 1, 2020, to September 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 19, 2021, the inspectors presented the emergency preparedness inspection results to Mr. Michael Gillin, Plant Manager and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71114.01	Procedures	EP-AA-1008	Radiological Emergency Plan Annex for Limerick Generating Station	Revision 32
		EP-AA-1008 Addendum 3	Emergency Action Levels for Limerick Generating Station	Revision 6