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

October 20, 2020

Mr. Bryan C. Hanson
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 – DESIGN BASIS ASSURANCE INSPECTION (PROGRAMS) INSPECTION REPORT 05000352/2020014 AND 05000353/2020014

Dear Mr. Hanson:

On October 1, 2020, 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. Frank Sturniolo, Site Vice President, 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,

X /RA/

Signed by: Melvin K. Gray

Mel Gray, Chief
Engineering Branch 1
Division of Reactor Safety

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 – DESIGN BASIS ASSURANCE INSPECTION (PROGRAMS) INSPECTION REPORT 05000352/2020014 AND 05000353/2020014 DATED OCTOBER 20, 2020

DISTRIBUTION:

DLew, RA	(R1ORAMAIL Resource)
RLorson, DRA	(R1ORAMAIL Resource)
DCollins, DRP	(R1DRPMAIL Resource)
BPham, DRP	(R1DRPMAIL Resource)
JYerokun, DRS	(R1DRSMAIL Resource)
PKrohn, DRS	(R1DRSMAIL Resource)

JGreives, DRP
LCasey, DRP
ZCoffman, DRP
AZiedonis, DRP, SRI
SHaney, DRP, RI
NEsch, DRP, AA
RSkokowski, RI OEDO
RidsNrrPMLimerick Resource
RidsNrrDorlLpl1 Resource
ROPreports Resource

DOCUMENT NAME: G:\DRS\Engineering Branch 1\POV inspections\Limerick POV\Limerick POV IR 2020-014.docx

ADAMS ACCESSION NUMBER: ML20294A395

☑ SUNSI Review		☑ Non-Sensitive ☐ Sensitive		☑ Publicly Available ☐ Non-Publicly Available	
OFFICE	RI/DRS	RI/DRP	RI/DRS		
NAME	APatel	JGreives	MGray		
DATE	10/14/20	10/20/20	10/20/20		

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000352 and 05000353
License Numbers:	NPF-39 and NPF-85
Report Numbers:	05000352/2020014 and 05000353/2020014
Enterprise Identifier:	I-2020-014-0000
Licensee:	Exelon Generation Company, LLC
Facility:	Limerick Generating Station, Units 1 and 2
Location:	Sanatoga, PA 19464
Inspection Dates:	September 14, 2020 to October 1, 2020
Inspectors:	A. Patel, Senior Reactor Inspector (Team Leader) J. Brand, Reactor Inspector L. Dumont, Reactor Inspector
Approved By:	Mel Gray, Chief Engineering Branch 1 Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a design basis assurance inspection (programs) 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. Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), inspectors were directed to begin telework. In addition, regional baseline inspections were evaluated to determine if all or portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71111.21N.02 - Design-Basis Capability of Power-Operated Valves Under 10 CFR 50.55a Requirements

POV Review (IP Section 03) (10 Samples)

The inspectors:

a. Determined whether the sampled power-operated valves (POVs) are being tested and maintained in accordance with NRC regulations along with the licensee's commitments and/or licensing bases.
b. Determined whether the sampled POVs are capable of performing their design-basis functions.
c. Determined whether testing of the sampled POVs is adequate to demonstrate the capability of the POVs to perform their safety functions under design-basis conditions.
d. Evaluated maintenance activities including a walkdown of the sampled POVs (if accessible).

(1) HV-012-032A, Residual Heat Removal (RHR) Service Water Spray Nozzle Inlet Valve
(2) HV-051-2F014A, 2A RHR Heat Exchanger Shutoff Valve
(3) HV-051-1F068B, 1B RHR Heat Exchanger Service Water Outlet Valve
(4) HV-055-1F003, High Pressure Coolant Injection (HPCI) Main Steam Supply Outboard Primary Containment Isolation Valve
(5) HV-050-2F045, Reactor Core Isolation Cooling (RCIC) Steam Supply Valve
(6) HV-055-2F004, HPCI Pump Suction from Condensate Storage Tank Valve
(7) HV-C-051-2F048A, 2A RHR Heat Exchanger Bypass Valve
(8) HV-011-123, Service Water Emergency Service Water (ESW) LOOP "A" Return Valve
(9) HV-011-041, Division 1 Safeguard ESW LOOP "A" Return Valve
(10) FV-050-113, RCIC Governor Valve

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On October 1, 2020, the inspectors presented the design basis assurance inspection (programs) inspection results to Mr. Frank Sturniolo, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.02	Calculations	8031-P-104	Limerick Generating Station Units 1 & 2, MOV Design Specification	26
		LE-0104, DC MCC Manual Control Circuit Calculation		1
	Corrective Action Documents Resulting from Inspection	4369321		
		4369678		
		4370053		
		4370057		
		4370083		
		4370088		
		4370090		
		4370099		
	Miscellaneous	55-VCS-1	Limerick Generating Station, Units 1&2, IST Program Bases Document	0
	Procedures	ER-AA-302-1001	MOV Rising Stem Motor Operated Valve Thrust and Torque Sizing and Set-Up Window Determination Methodology	13
		ER-AA-302-1003	MOV Margin Analysis and Periodic Verification Test Intervals	10
		ER-AA-302-1007	MOV Limitorque Actuator Capability Determination Methodology	11
		MA-AA-723-300-1005	Review and Evaluation of Motor Operated Valve Test Data	3
		MA-AA-723-301	Periodic Inspection of Limitorque Model SMB/SB/SBD-000 Through 5 Motor Operated Valves	14