



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

September 22, 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 – TEMPORARY
INSTRUCTION 2515/193 INSPECTION REPORT 05000352/2020013 AND
05000353/2020013

Dear Mr. Hanson:

On September 11, 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. Martin Bonifanti 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: Josephine A. Ambrosini
Josephine A. Ambrosini, Team Leader
Technical Support and Administrative Team
Division of Reactor Projects

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

Enclosure:
As stated

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SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2 – TEMPORARY
 INSTRUCTION 2515/193 INSPECTION REPORT 05000352/2020013 AND
 05000353/2020013 DATED SEPTEMBER 22, 2020

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ADAMS ACCESSION NUMBER: ML20266G286

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

Docket Numbers: 05000352 and 05000353

License Numbers: NPF-39 and NPF-85

Report Numbers: 05000352/2020013 and 05000353/2020013

Enterprise Identifier: I-2020-013-0000

Licensee: Exelon Generation Company, LLC

Facility: Limerick Generating Station, Units 1 and 2

Location: Sanatoga, PA 19464

Inspection Dates: September 7, 2020 to September 11, 2020

Inspectors: D. Werkheiser, Senior Reactor Analyst
A. Ziedonis, Senior Resident Inspector

Approved By: Josephine A. Ambrosini, Team Leader
Technical Support and Administrative Team
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a Temporary Instruction (TI) 2515/193 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.

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

2515/193 - Inspection of the Implementation of EA-13-109: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions

Inspection of the Implementation of EA-13-109: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions (1 Sample)

(1) PHASE 1

The inspectors evaluated licensee implementation of the appropriate elements of the reliable hardened containment wetwell vent as described in the plant specific submittal(s) and the associated NRC safety evaluation [ADAMS Accession No. M19112A145]. Specifically, the inspectors evaluated licensee implementation of the hardened containment vent system (HCVS) functional requirements, design features, maintenance and testing, quality standards, and programmatic requirements as described in Appendix A of TI 2515/193 Revision 1.

PHASE 2

The inspectors evaluated licensee implementation of the appropriate elements of the reliable wetwell venting strategy as described in the plant specific submittal(s) and the associated NRC safety evaluation [ADAMS Accession No. M19112A145]. Specifically, the inspectors evaluated licensee implementation of severe accident water addition / severe accident water management (SAWA/SAWM) functional requirements, installed instrumentation, maintenance and testing, and programmatic requirements as described in Appendix B of TI 2515/193 Revision 1.

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On September 11, 2020, the inspectors presented the Temporary Inspection 2515/193 inspection results to Mr. Martin Bonifanti and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
2515/193	Corrective Action Documents	4361152 4361146 4358228 4350405 4346354 4345916 4350427 4349090 4346156 4341056 4316206 4316199 4231186 4212802 4212781 4212779 4212770 4212763 4212755 4185900 4157226 4157225 4139792 4136549 4106726 4077449 4021285 4018286		
	Corrective Action Documents Resulting from Inspection	04368729		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Drawings	M-57, Sht 1 / 4	Containment Atmosphere Control, U1, U2, and Common	Revision 49 / 14
		M-57, Sht. 8 and 9	Containment Hardened Vent (U1 and U2)	Revisions 0 / 1
	Engineering Changes	16-00012 / 00270 / 422831 / 423333 / 423381	FUKUSHIMA HARDENED VENT MODIFICATIONS (On-line / Off-line / U1 / U2 / Common)	Various
	Miscellaneous		LGS TI-2515/193 Reliable Hardened Containment Vent and SAWA/M Summary Presentation	09/08/2020
		ML19112A145	LIMERICK GENERATING STATION, UNITS 1 AND 2 - SAFETY EVALUATION REGARDING IMPLEMENTATION OF HARDENED CONTAINMENT VENTS CAPABLE OF OPERATION UNDER SEVERE ACCIDENT CONDITIONS RELATED TO ORDER EA-13-109	05/14/2019
	Procedures	CC-LG-118	SITE IMPLEMENTATION OF DIVERSE AND FLEXIBLE COPING STRATEGIES (SPENT FUEL POOL INSTRUMENTATION AND HARDENED CONTAINMENT VENT (HCVS) PROGRAM	Revision 9
		CC-LG-118-1004	Final Integrated Plan, HCVS Order EA-13-109 for Limerick Generating Station	Revision 0, 11/14/2018
		OP-LG-102-106	OPERATOR RESPONSE TIME PROGRAM AT LIMERICK STATION	Revision 11
		T-101 Common	RPV Control	Revision 026
		T-102 Common	Primary Containment Control	Revision 027
		T-103 Common	Secondary Containment Control	Revision 024
		T-300	FLEX Pump Setup at Spray Pond	Revision 004
		T-301 U1 / U2	RPV Injection From Spray Pond	Revisions 005 / 007
		T-341 U1 / U2	PRIMARY CONTAINMENT VENTING VIA HARDENED CONTAINMENT VENT SYSTEM	Revisions 001 / 002
Self-Assessments	AR 04314889-04	HCVS compliance Pre-NRC Inspection	05/19/2020	