UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

November 29, 2019

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

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 – NRC TEMPORARY INSTRUCTION 2515/193, IMPLEMENTATION OF RELIABLE HARDENED CONTAINMENT VENTS INSPECTION REPORT 05000373/2019011 AND 05000374/2019011

Dear Mr. Hanson:

On November 20, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at LaSalle County Station, Units 1 and 2 and discussed the results of this inspection with Ms. Deborah McBreen 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,

/RA/

Ann Marie J. Stone, Technical Support Team Leader
Technical Support Staff
Division of Reactor Projects

Docket Nos. 05000373 and 05000374
License Nos. NPF-11 and NPF-18

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to Bryan Hanson from Ann Marie Stone dated November 29, 2019.

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 – NRC TEMPORARY INSTRUCTION 2515/193, IMPLEMENTATION OF RELIABLE HARDENED CONTAINMENT VENTS INSPECTION REPORT 05000373/2019011 AND 05000374/2019011

DISTRIBUTION:
Jessie Quichocho
RidsNrrDorlLpl3
RidsNrrPMLaSalle
RidsNrrDroIrib Resource
Darrell Roberts
John Giessner
Jamnes Cameron
Allan Barker
DRPIII
DRSIII
ROPreports.Resource@nrc.gov

ADAMS ACCESSION NUMBER: ML19333B843

X SUNSI Review		X Non-Sensitive ☐ Sensitive		X Publicly Available ☐ Non-Publicly Available	
OFFICE	RIII				
NAME	AStone:bw				
DATE	11/29/2019				

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000373 and 05000374
License Numbers:	NPF-11 and NPF-18
Report Numbers:	05000373/2019011 and 05000374/2019011
Enterprise Identifier:	I-2019-011-0034
Licensee:	Exelon Generation Company, LLC
Facility:	LaSalle County Station, Units 1 and 2
Location:	Marseilles, IL
Inspection Dates:	November 18, 2019 to November 20, 2019
Inspectors:	J. Havertape, Resident Inspector S. Sheldon, Project Engineer
Approved By:	Ann Marie J. Stone, Technical Support Team Leader Technical Support Staff Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a NRC Temporary Instruction 2515/193, Implementation of Reliable Hardened Containment Vents Inspection at LaSalle County 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) The inspectors reviewed appropriate elements of the reliable hardened containment wetwell vent as described in the plant specific submittals and the associated safety evaluation (ADAMS Accession No. ML19218A365) to determine whether the licensee was in compliance with NRC Order EA-13-109 Phase 1, "Reliable, Severe Accident Capable Wetwell Venting System" (ADAMS Accession No. ML13143A321).

The purpose of the inspection was to verify the licensee satisfactorily:

- Installed the Hardened Containment Vent System (HCVS) to meet the performance objectives outlined in Section A.1.1 of Attachment 2 to the Order EA-13-109;
- Installed the HCVS system with the design features specified in Section A.1.2 of Attachment 2 to the Order EA-13-109;
- Designed the HCVS to meet the quality standards described in Section A.2 of Attachment 2 to the Order EA-13-109;
- Developed and implemented adequate maintenance and testing of HCVS equipment to ensure their availability and capability;
- Developed and issued procedures to safely operate the HCVS using normal power supplies, during Extended Loss of AC Power (ELAP), and a postulated severe accident scenario, and integrated the procedures into existing plant procedures; and
- Trained their staff to assure personnel can proficiently operate the HCVS.

The inspectors reviewed appropriate elements of the reliable wetwell venting strategy as described in the plant specific submittals and the associated safety evaluation (ADAMS Accession No. ML19218A365) to determine whether the licensee was in compliance with NRC Order EA-13-109 Phase 2, "Reliable, Severe Accident Capable Drywell (or alternative strategy) Venting System" (ADAMS Accession No. ML13143A321).

The purpose of the inspection was to verify the licensee satisfactorily developed a strategy making it unlikely to vent from the containment drywell, that includes the following:

- Implemented the Severe Accident Water Addition (SAWA)/Severe Accident Water Management (SAWM) systems as defined and fulfilled functional requirements for installed and portable equipment;
- Installed and/or identified the previously-installed instrumentation necessary to implement SAWM;
- Developed and implemented adequate maintenance and testing of SAWA/SAWM equipment to ensure availability and capability;
- Developed and issued procedures to safely operate the SAWA/SAWM during an ELAP and during postulated severe accident scenario, and integrated their procedures into their existing plant procedures such that entry into and exiting from the procedures are clear when using existing plant procedures; and
- Trained their staff to assure personnel can proficiently operate the HCVS during an ELAP and accident scenario.

The inspectors verified that any noncompliance with requirements, and standards identified during the inspection were entered into the licensee's corrective action program

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 20, 2019, the inspectors presented the NRC Temporary Instruction 2515/193, Implementation of Reliable Hardened Containment Vents Inspection results to Ms. D. McBreen and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
2515/193	Corrective Action Documents	2703470	Technical Errors in Vendor Design Report for HCVS	08/11/2016
		2716222	Hardened Containment Vent System (HCVS) Connection NDE Issue	09/15/2016
		3955609	HCVS Tower Knife Plate Bolted Connection Gap	12/08/2016
		3970177	HCVS Rupture Disc Follow-Up	02/02/2017
		3974587	2PC525A Passes Flow When in Normal	02/15/2017
		4010161	HCVS Radiation Monitor Not Mounted Per Vendor Drawings	05/12/2017
		4030989	Welded Lugs not Installed on HCVS Pipe	07/11/2019
		4098335	Work Order to Set SAWA Flow Meter Parameter	01/29/2018
		4109342	HCVS Electrical Routing Deviated from Design Drawings	02/28/2018
		4145923	HCVS Batteries Require a Longer Equalizing Charge	05/31/2018
		4151839	Trend IR: Small Argon Leak on U2 HCVS Bottle Banks	06/29/2018
		4179990	NRC Identified - LOA-FSG-002 Contingency Path Issue	10/02/2018
		4284007	SAWA Flowmeter Orientation Discrepancy Identified	09/18/2019
		4296569	Incorrect Diagram Submitted with HCVS Final Integrated Plan	11/12/2019
	Corrective Action Documents Resulting from Inspection	4298204	2019 NRC HCVS Walkdown Observation	11/18/2019
		4298700	NRC 2019 HCVS Inspection - Freeze Line	11/20/2019
		4298703	NRC 2019 HCVS Inspection LGA-VQ-102/202	11/20/2019
	Drawings	1E-0-4000FA	Key Diagram Hardened Containment Vent System (HCVS) 125 VDC Distribution Panel 0DC52E	A
		M-138 Sheet 2	P&ID Primary Containment Vent and Purge	P
		M-138 Sheet 3	P&ID Primary Containment Vent and Purge	A
	Miscellaneous		Final Integrated Plan HCVS Order EA-13-109	12/14/2018
			2018 - 2019 Long Range Training Plan	0
	Procedures	LGA-001	RPV Control	18
		LGA-003	Primary Containment Control	18
		LGA-004	RPV Blowdown	9
		LGA-VQ-102	Unit 1 Emergency Containment Vent	4
		LOA-AP-101	Unit 1, AC Power System Abnormal	59

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		LOA-FSG-002	FLEX Electrical Strategy	10
		LOA-FSG-003	FLEX Water Supply Strategy	8
		LOA-FSG-011	FLEX Beyond Design Basis External Event Guidance	6
		LSAMG-001	RPV and Primary Containment Injection	0
		LSAMG-002	RPV, Containment, and Radioactivity Release Control	1
	Work Orders	AR 4067775	HCVS Tee Weight Increase	10/24/2017
		WO 1940217 - 71	U2 HCVS PCIV LLRT	02/16/2017
		WO 1942017 - 66 thru 69	U2 HCVS PCIV Testing, Main Control Room and Remote Operating Station	02/13/2017
		WO 4571434 - 16	U2 HCVS Radiation Monitor Loop Calibration	02/23/2017
		WO 4573336 - 29	U2 HCVS 2PC525A Troubleshooting	02/21/2017
		WO 4591065 - 01	LOS-PC-R4, U2 HCVS Testing of ROS and Manual Bypass Valves	02/15/2017
		WO 4591094 - 01	LOS-PC-R6, U2 HCVS Test of 0PM08J Valves and Logic	02/15/2017
		WO 4632060 - 19	LOS-PC-R4, U1 HCVS Testing of ROS and Manual Bypass Valves	12/21/2017
		WO 4632060 - 29	LOS-PC-R6, HCVS Test of 0PM08J Valves and Logic	12/21/2017
		WO 4632060 - 40 thru 43	U1 HCVS PCIV Testing, Main Control Room and Remote Operating Station	12/21/2017
		WO 4632060 - 44	U1 HCVS PCIV LLRT	02/28/2018
		WO 4653865 - 16 and 19	U1 HCVS Radiation Monitor and Argon Pressure Transmitter Loop Calibration	01/26/2018
		WO 4655747 - 01	U2 HCVS PCIV LLRT	03/03/2019
		WO 4655748 - 01	LOS-PC-Q2, U2 HCVS Operability, Inservice Inspection, and Walkdown	03/03/2019
		WO 4655751 - 01	LOS-PC-R6, U2 HCVS Test of 0PM08J Valves and Logic	03/05/2019
		WO 4655752 - 01	LOS-PC-R4, U2 HCVS Testing of ROS and Manual Bypass Valves	03/05/2019
		WO 4655753 - 01	LOS-PC-R3, U2 HCVS Valve and Logic Test	03/05/2019
		WO 4663979 - 01	U2 HCVS Radiation Monitor Calibration and Maintenance	07/20/2018