



LG-15-090

TRM 3.3.7.2

July 13, 2015

U.S. Nuclear Regulatory Commission  
Attn.: Document Control Desk  
Washington, DC 20555-0001

Limerick Generating Station, Units 1 and 2  
Renewed Facility Operating License Nos. NPF-39 and NPF-85  
NRC Docket Nos. 50-352 and 50-353

Subject: Special Report - Seismic Monitoring Instrumentation Inoperability, Revision 2

Reference: Special Report - Seismic Monitoring Instrumentation Inoperability, Revision 0,  
dated December 5, 2014

Special Report - Seismic Monitoring Instrumentation Inoperability, Revision 1,  
dated March 13, 2015

This Special Report is being updated and re-submitted pursuant to the requirements of Limerick Generating Station (LGS), Unit 1 and Unit 2 Updated Final Safety Analysis Report (UFSAR) section 3.7.4.5, Technical Specification 6.9.2, and Technical Requirements Manual 3.3.7.2 that states, "With one or more of the seismic monitoring instruments inoperable for more than 30 days, a Special Report shall be prepared and submitted to the Nuclear Regulatory Commission pursuant to Specification 6.9.2 of the Technical Specifications within the next ten days outlining the cause of the malfunction and the plans for restoring the instrument(s) to operable status." This revised report includes the identification of one additional degraded channel.

On Sunday, October 26, 2014, Unit 1 and Unit 2 were operating at 100% power with functional testing (ST-2-036-600-0) of seismic monitoring instrumentation in progress. During the test, at approximately 1800 hours, the seismic monitor sensor array (XE-VA-105) for the "D" Main Steam Line (MSL) did not respond as expected and was declared inoperable.

On Tuesday, February 3, 2015, Unit 1 was operating at 100% power and Unit 2 was operating at approximately 99.8% power with functional testing (ST-2-036-606-0) of the Spray Pond Pump House (SPPH) seismic monitoring instrumentation in progress. During the test, at approximately 0926 hours, the SPPH seismic monitor sensor array (XRSH-VA-107) for the SPPH foundation did not respond as expected and was declared inoperable.

On Wednesday, June 3, 2015, Unit 1 and Unit 2 were operating at 100% power with functional testing (ST-2-036-600-0) of seismic monitoring instrumentation in progress. During the test, the seismic monitor sensor array (XE-VA-103) for the containment structure (diaphragm slab) did not respond as expected and was declared inoperable.

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Each sensor array has three channels which measure longitudinal movement, vertical movement, and transverse movement. For the MSL channel, the sensor array did not exhibit the correct waveforms during the functional test. Instrumentation and Control (I&C) and Engineering personnel determined that the "D" MSL sensor array was degraded. The sensor array is located in the Unit 1 drywell and cannot be accessed for recalibration or repair without a plant outage. The inoperable MSL sensor (XE-VA-105) will be restored to operable status by the end of the 1R16 refueling outage (April 2016).

The SPPH foundation channel sensor did not respond properly during testing. The cause of the failure is unknown. The current sensor cannot be repaired since it is obsolete and replacement parts are not available. A different model replacement sensor has been procured. The inoperable SPPH foundation sensor (XRSH-VA-107) will be restored to operable status by July 31, 2015.

Three of six system instrument sensors remain operable. The inoperable seismic monitor sensor arrays (XE-VA-105 and XE-VA-103) that are located in the drywell of Unit 1 will be repaired, tested, and returned to operable status by the end of the 1R16 refueling outage (April 2016). The inoperable SPPH foundation sensor (XRSH-VA-107) will be restored to operable by July 31, 2015.

There are two regulatory commitments identified in this letter. The commitments are listed in Attachment 1.

If you have any questions, please contact Robert B. Dickinson at (610) 718-3400.

Sincerely,

Original signed by

Richard W. Libra  
Site Vice President – Limerick Generating Station  
Exelon Generation Company, LLC

Attachment: List of commitments

cc: Administrator, Region I, NRC  
NRC Senior Resident Inspector, Limerick

ATTACHMENT 1

SUMMARY OF REGULATORY COMMITMENTS

The following table identifies commitments made in this document. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

COMMITMENT	COMMITTED DATE OR "OUTAGE"	COMMITMENT TYPE	
		ONE-TIME ACTION (Yes/No)	PROGRAMMATIC (Yes/No)
The inoperable seismic monitor sensor arrays (XE-VA-105 and XE-VA-103) that are located in the drywell of Unit 1 will be repaired, tested, and returned to operable status by the end of the 1R16 refueling outage (April 2016).	Outage	Yes	No
The inoperable SPPH foundation sensor (XRSH-VA-107) will be restored to operable status by July 31, 2015.	7/31/2015	Yes	No