

December 30, 2005

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

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

Subject: LER 1-05-005, Missed Surveillance Resulted In A Condition Prohibited By
Technical Specifications

This Licensee Event Report (LER) addresses a condition prohibited by Technical Specifications. An offsite circuit calculation credited a ten second time delay on 101 and 201 safeguard transformer tap changers in the automatic mode to maintain operability of the offsite circuits. The associated offsite circuit should have been considered inoperable when the automatic voltage control (AVC) was operating in manual mode under certain configurations of the safeguard buses. A subsequent review of the three year reporting period identified occasions when the station operated in these configurations and did not take the required Technical Specification actions.

Report Number: 1-05-005
Revision: 00
Event Date: October 5, 1992
Discovered Date: November 3, 2005
Report Date: December 30, 2005

This LER is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(i)(B).

If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,

Original signed by

Ron J. DeGregorio
Vice President – Limerick
Exelon Generation Company, LLC

cc: S. J. Collins, Administrator Region I, USNRC
S. L. Hansell, USNRC Senior Resident Inspector, LGS

SUMMARY OF EXELON NUCLEAR COMMITMENTS
LS-AA-117-1003 Rev.2

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 #1	Committed date (or "outage"):	3/31/06
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A modification will be implemented to change the AVC time delays on 10, 20, 101 and 201 transformers. As a result the offsite circuits will remain operable when 101 and 201 transformer AVCs are placed in manual mode.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME Limerick Generating Station, Unit 1	2. DOCKET NUMBER 05000352	3. PAGE 1 OF 4
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4. TITLE
Missed Surveillance Resulted In A Condition Prohibited By Technical Specifications

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
10	05	1992	2005	- 005 -	0	12	30	2005	Limerick Unit 2	05000353
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE 1

10. POWER LEVEL 100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)

<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME Robert E. Kreider, Manager – Regulatory Assurance	TELEPHONE NUMBER (Include Area Code) 610-718-3400
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO			

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

An offsite circuit calculation credited a ten second time delay on 101 and 201 safeguard transformer tap changers automatic voltage controls to maintain operability of the offsite circuits. The associated offsite circuit should have been considered inoperable when the automatic voltage control was operating in manual mode under certain configurations of the safeguard buses. A subsequent review of the three year reporting period identified occasions when the station operated in these configurations and did not take the required Technical Specification action. A modification will be implemented to change the automatic voltage control time delays on the safeguard and station auxiliary transformers. As a result the offsite circuits will remain operable when 101 and 201 safeguard transformer automatic voltage controls are placed in manual mode.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
Limerick Generating Station, Unit 1	05000352	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		2005	-- 005	-- 00	

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

Unit Conditions Prior to the Event

Unit 1 was in Operational Condition (OPCON) 1 (Power Operation) at approximately 100% power. Unit 2 was in Operational Condition (OPCON) 1 (Power Operation) at approximately 100% power. There were no structures, systems or components out of service that contributed to this event.

Description of the Event

On Thursday November 3, 2005, a corporate engineering evaluation determined that a calculation credited a ten second time delay which was implemented on both offsite circuit (OSC) (EIS:EA) safeguard transformers (EIS:XFMR) load tap changer automatic voltage control (AVC). Therefore, the associated OSC should have been considered inoperable when the AVC was operating in manual mode under certain configurations of the safeguard buses. The OSC had not been declared inoperable as required during periods when operating in these configurations.

The safeguard transformer tap changer AVC is routinely placed in manual mode prior to operating any emergency diesel generator (EDG) (EIS:EK) in parallel with the OSC. In addition, the EDG is considered inoperable when operating in parallel with the OSC. It is also routine to transfer the OSC that is aligned to the safeguard bus during EDG testing. This often results in three safeguard buses being aligned to the OSC on the unit conducting EDG testing. Therefore, one OSC and one EDG are inoperable when in this configuration.

TS 3.8.1.1 action "d" applies when one OSC and one EDG are inoperable. The TS states that "With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable for any reason other than preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining diesel generators by performing Surveillance Requirement 4.8.1.1.2a.4 for one diesel generator at a time, within 8 hours*. Restore at least two offsite circuits to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. See also ACTION e." TS Surveillance Requirement (SR) 4.8.1.1.1.A verifies the breaker alignment and power availability on the remaining operable OSC. TS SR 4.8.1.1.2a.4 verifies the EDGs can start and achieve the required frequency and voltage.

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FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)	
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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

An interim corrective action was implemented which revised procedures to ensure that the OSC is declared inoperable when 101 or 201 transformer AVC is placed in manual mode. A modification will be implemented to change the transformer AVC time delay and eliminate the deficiency. Procedures will then be revised again to allow placing the safeguard transformer AVC in manual mode without requiring the OSC to be declared inoperable.

A subsequent review of the three year reporting period identified occasions when the station operated in these configurations and did not take the required Technical Specification actions. The twenty-four hour endurance run routine tests are conducted on a twenty-four month frequency and EDG surveillance tests are conducted monthly. Both of these tests result in periods of operation in these configurations.

This event involved a condition prohibited by Technical Specifications. Therefore, this LER is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(i)(B).

Analysis of the Event

There were no actual safety consequences associated with this event. The potential safety consequences of this event were minimal.

Limerick OSC design consists of one 13 kV circuit from the 220 kV substation and one 13 kV circuit from the 500 kV substation. The circuit from the 220 kV substation utilizes 10 Station Auxiliary Transformer and 101 Safeguard Transformer to feed 101 safeguard 4 kV bus. The circuit from the 500 kV substation utilizes 4A and 4B Station Auto Transformer, 20 Regulating Transformer and 201 Safeguard Transformer to feed 201 safeguard 4 kV bus. Each unit has four 4kV safeguard buses. Two 4kV safeguard buses on each unit are normally energized from 101 bus and two buses on each unit are normally energized from 201 bus.

Prior to 1992, 10 and 20 transformer AVC time delays were set at 20 seconds; 101 and 201 transformer AVC time delays were set at 30 seconds. In 1992 an NRC Electrical Distribution System Functional Inspection (EDSFI) inspection observation (NRC IR 92-81, 12/4/92) resulted in implementation of a modification, on October 5, 1992, that changed the time delay from 30 seconds to 10 seconds on 101 and 201 transformer AVCs. Also, 10 transformer AVC time delay was reduced from 20 seconds to 17 seconds. However, operation of the tap changer in manual was not addressed in operating procedures.

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FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)	
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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

As a result of this event, a modification will be implemented to change the 10 and 20 transformer AVC time delay to 10 seconds. The modification also will change the 101 transformer AVC time delay from 10 seconds to 17 seconds, and 201 transformer AVC time delay from 10 seconds to 20 seconds. This modification will allow the AVC for the safeguard transformer on each OSC to be placed in manual mode without requiring the OSC to be declared inoperable. The AVC on both station auxiliary transformers (10 and 20) must be maintained in automatic mode to support OSC operability. Otherwise, engineering analysis of the specific conditions will be required to determine OSC operability.

Cause of the Event

The event was caused by a failure to properly implement the requirement to maintain the 101 and 201 safeguard transformers AVC in the automatic mode following a modification that changed the AVC time delays from 30 seconds to 10 seconds.

Corrective Action Completed

An interim corrective action was implemented which revised procedures to ensure that the OSC is declared inoperable when 101 or 201 transformer AVC is placed in manual mode.

Corrective Actions Planned

A modification will be implemented to change the AVC time delays on 10, 20, 101 and 201 transformers. As a result the OSCs will remain operable when 101 and 201 transformer AVCs are placed in manual mode. This action will be complete by March 31, 2006.

Previous Similar Occurrences

There were no previous events where OSCs were rendered inoperable as a result of inadequate implementation of a modification.