

February 6, 2007

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

Limerick Generating Station, Unit 2  
Facility Operating License No. NPF-85  
NRC Docket No. 50-353

Subject: Special Report – D24 Diesel Generator Invalid Failure

This Special Report is being submitted pursuant to the requirements of Limerick Generating Station (LGS), Unit 2 Technical Specifications (TS) 6.9.2. TS 4.8.1.1.3, states "All diesel generator failures, valid or non-valid, shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2 within 30 days. Reports of diesel generator failures shall include the information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977." This event was determined to be an invalid failure that requires reporting per TS 4.8.1.1.3.

On Wednesday, January 17, 2007, with Limerick Unit 2 operating at 100% power, operators were conducting the monthly surveillance run on D24 Emergency Diesel Generator (EDG). The EDG was started at 09:11 hours. Several minutes later, the operator reset the exciter shutdown when the EDG reached rated speed, which is intended to close the K1 relay (field excitation contactor). This was followed by a local alarm indicating a loss of field excitation condition. The operator at the EDG identified that the K1 relay was open, which was not expected. The EDG was then shutdown as directed by procedure.

Troubleshooting identified that the K1 relay (field excitation contactor) was degraded. The relay was repaired and successfully tested. The EDG was restored to operable status at 03:10 on Thursday, January 18, 2007.

The K1 relay (field excitation contactor) is normally closed when the EDG is in the standby condition and does not change state following an emergency start demand. The relay was verified to be closed after the last monthly test and was re-verified to be closed prior to this test. Therefore, the EDG would have performed its safety function if an accident had occurred in the period between the two monthly tests. The relay is manually opened prior to slow starting the EDG for the monthly test and is manually closed after the EDG is at synchronous speed. This failure was caused by a malfunction of equipment that is not operative in the emergency operating mode; therefore, it should not be considered a valid test or failure per RG 1.108 Rev.1, section C.2.e(2).

The information required to be reported by RG 1.108 Rev.1, section C.3.b is as follows:

The diesel generator unit involved was D24 EDG.

This event was not a valid test failure. There are zero failures in the last 100 valid tests.

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The cause of the failure was a defective latch auxiliary switch on the field excitation relay (K1).

The corrective measure taken was to replace the latch auxiliary switch on the field excitation relay (K1).

The EDG was unavailable from 1/17/07 09:30 to 1/18/07 03:10 (less than 18 hours.)

The current surveillance test interval is 31 days, which is in conformance with the schedule of Regulatory Position C.2.d.


Component Data:

Component:	K1 Relay (Field Excitation Contactor)
Manufacturer:	ABB
Part number:	EH250C-125VDCM1

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

There are no commitments contained in this letter.

Sincerely,



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

cc: S. J. Collins, Administrator, Region I, NRC  
S.L. Hansell, NRC Senior Resident Inspector, Limerick