

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104
EXPIRES 8/31/85

FACILITY NAME (1) Limerick Generating Station Unit 1	DOCKET NUMBER (2) 0500035285	LER NUMBER (5)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		85	024	00	02	OF	03

TEXT (if more space is required, use additional NRC Form 266a) (17)

Description of the Event:

On February 8, 1985, at 1:45 a.m., with Unit 1 in cold shutdown, a half-scrum signal on the 'B' Reactor Protection System (RPS) channel occurred along with various outboard Nuclear Steam Supply Shutoff System (NSSSS) isolations. The Reactor Water Cleanup system, Drywell Chilled Water system, Instrument Gas system, Reactor Enclosure and Refuel Floor HVAC systems, and the RHR Shutdown Cooling system isolated. Additionally, both reactor recirculation pumps tripped. The event occurred as a result of a temporary loss of power to the 1B Reactor Protection System (RPS) and Uninterruptible Power System (UPS) 120 VAC Distribution Panel No. 1BY160. After the event, the half-scrum signal was reset and all affected systems were returned to normal.

Consequences of the Event:

The Reactor Protection System and Nuclear Steam Supply Shutoff System performed as designed during the loss of power transient. Reactor coolant recirculation was terminated due to the reactor recirculation pump end-of-cycle trip. There were no adverse effects on reactor water chemistry as a result of the RWCU isolation. There were no adverse consequences as a result of this event.

Cause of the Event:

A voltage recorder, installed for troubleshooting prior events (LER's 84-039 and 85-007), indicated that the cause of the loss of power was voltage fluctuations from the voltage regulator board in the 'B' RPS and UPS static inverter. The fluctuations caused a temporary overvoltage condition which resulted in the trip of the 1BY160 panel electrical supply breakers. The loss of power to the 1BY160 panel caused the 'B' RPS and outboard NSSSS circuits to de-energize. On de-energization, RPS initiated a half-scrum and an end-of-cycle trip of both reactor recirculation pumps and closure of outboard NSSSS subsystem valves.

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FACILITY NAME (1) Limerick Generating Station Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 5 2 8 5 - 0 2 4 - 0 0 0 3 OF 0 3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 366A's) (17)

This event resulted from high ambient temperatures in the Inverter Room (which houses three 30kVA static inverters and four transformers) and poor air circulation through the static inverter cabinets. The high temperatures caused drifting setpoints and unacceptable tolerances on the inverter printed circuit boards.

The high ambient temperatures had been identified prior to this event. A modification was initiated on December 18, 1984 to install hoods and fans on the inverter cabinets to reduce the temperature.

Corrective Actions:

The half-scrum and NSSSS isolations were reset by 2:40 a.m. The potentiometers on the voltage regulator board and master logic board in the 1B static inverter were adjusted to produce the proper outputs. The setpoint of the Inverter Room temperature control was changed to reduce the temperature of this room approximately 10 degrees Fahrenheit. The modification to install hoods and fans in the top of all static inverter cabinets in the Inverter Room to increase the air flow and thereby reduce the temperature was completed on February 15, 1985.

Previous Similar Occurrences:

LGS LER's: 84-005, 84-039, 85-007.

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March 8, 1985

Docket No. 50-352

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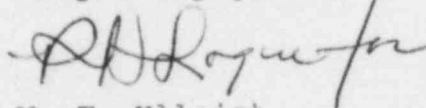
SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 1

This LER concerns the half-scrum and Nuclear Steam Supply Shutoff System isolations resulting from a temporary loss of power to the 1B Reactor Protection System and Uninterruptible Power System 120V Panel.

Reference:	Docket No. 50-352
Report Number:	85-024
Revision Number:	00
Event Date:	February 8, 1985
Report Date:	March 8, 1985
Facility:	Limerick Generating Station
	P.O. Box A, Sanatoga, PA 19464

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(iv).

Very truly yours,



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Superintendent
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IF22
1/1

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January 16, 1985