NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Wolf Creek Generating Station	0 5 0 0 0 4 8 2	1 OF 0 2

TITLE (4)

Reactor Trip and Engineered Safety Features Actuation

EVENT DATE (5)			LER NUMBER (6)					REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR		SEQUENTIAL NUMBER		REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
												0 5 0 0 0
0 9	2 3	8 5	8 5	—	0 6 7	—	0 0	1 0	2 3	8 5		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)							
	1	20.402(b)		20.405(c)	X	50.73(a)(2)(iv)		73.71(b)	
POWER LEVEL (10)		20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)	
	1 0 0	20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
		20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)			
		20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)			
		20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Merlin G. Williams - Superintendent of Regulatory, Quality and Administrative Services	AREA CODE 3 1 6 — 3 6 4 - 8 8 3 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
B	J B	F C 0	W 1 2 0	Y							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

At approximately 0350 CDT on September 23, 1985, a low-low water level condition in Steam Generator (S/G) "D" caused a Reactor trip, Turbine trip, Steam Generator Blowdown and Sample Isolation, Feedwater Isolation and Auxiliary Feedwater Actuation. Shortly thereafter, a turbine-driven Auxiliary Feedwater Actuation occurred when a second S/G ("C") reached a low-low level condition. All required Reactor Protection System and Engineered Safety Features equipment functioned properly.

Prior to this event, the plant was in Mode 1, Power Operation, at 100 percent power with systems operating normally in automatic, except for pressurizer level control being in manual. Shortly before the trip, failure of a controller card for S/G "D" Feedwater Control Valve (FCV) caused the FCV to fail closed. Manual attempts to restore appropriate feedwater flow were unsuccessful in preventing S/G "D" level from reaching the low-low level setpoint.

Normal feedwater system configuration was re-established at approximately 0440 CDT, and the failed controller card was subsequently replaced.

There was no damage to plant equipment or release of radioactivity as a result of this event. At no time did conditions develop which could have posed a threat to the health or safety of the public.

There have been no previous reportable occurrences of controller card failure.

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

At approximately 0350 CDT on September 23, 1985, a Reactor trip, Main Turbine trip, Steam Generator Blowdown and Sample Isolation, Feedwater Isolation, and motor-driven Auxiliary Feedwater Actuation occurred as a result of low-low water level in Steam Generator (S/G)[AB-SG] "D". Shortly thereafter, a turbine-driven Auxiliary Feedwater Actuation was initiated when S/G "C" level also reached the low-low actuation setpoint. All required Reactor Protection System and Engineered Safety Features equipment responded properly.

Prior to the event, the plant was in Mode 1, Power Operation, at approximately 100 percent reactor power. All systems were in the automatic control mode except for pressurizer [AB-PZR] level, which was being controlled manually. Approximately 21 seconds before the trip, indication was received in the Control Room that feedwater flow to S/G "D" had dropped to zero and that S/G "D" water level was rapidly decreasing. The Reactor Operator immediately shifted the S/G "D" Feedwater Control Valve [SJ-FCV] to manual control in order to increase feedwater flow to S/G "D". However, he was unsuccessful in preventing S/G "D" water level from reaching the low-low level Engineered Safety Features Actuation setpoint.

Plant response to the resulting Reactor trip was normal. Steam Generator levels reached a minimum of 30 percent wide range and Steam Generator Power Operated Relief Valves [SB-RV] "C" and "D" opened for approximately 2 minutes and 1 minute, respectively, during this transient. Normal feedwater system configuration was restored at approximately 0440 CDT.

Subsequent investigations revealed that an automatic controller card [FCO] in the feedwater control system [JB] had failed, resulting in a loss of signal to the "D" Feedwater Control Valve. This caused the valve to fail to the closed position. The failure of the controller card had no effect on manual valve operation. The controller card has subsequently been replaced and the replacement card functionally tested satisfactorily.

The automatic controller card is Model 2838A30 G01 and was manufactured by Westinghouse Electric Corporation. The card failure was due to the failure of a transistor on the card. No definite cause for the failure of the transistor has been identified.

There was no damage to plant equipment or release of radioactivity as a result of this event, and at no time did conditions develop that may have posed a threat to the health or safety of the public.

Licensee Event Report 85-049-01 discusses one previous occurrence of a loss of signal to a Feedwater Control Valve. However, that event was due to a personnel activity in installing testing equipment in the feedwater control circuitry.

KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER
VICE PRESIDENT - NUCLEAR

October 23, 1985

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Mr. R.P. Denise, Director
Division of Reactor Safety and Projects
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

KMLNRC 85-236
Re: Docket No. STN 50-482
Subj: Licensee Event Report 85-067-00

Gentlemen:

The enclosed Licensee Event Report is submitted pursuant to 10 CFR 50.73 (a) (2) (iv) concerning an Engineered Safety Features actuation.

Yours very truly,

Glenn L Koester

Glenn L. Koester
Vice President - Nuclear

GLK:see

Enclosure

xc: PO'Connor (2), w/a
JCummins, w/a

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