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 3

TITLE (4)

ESF Actuation - Safety Injection and Main Steamline Isolation

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 4	2 8	8 5	8 5	–	0 2 1	–	0 0	0 5	2 4	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)			
3		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)
0 1 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	

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)

On April 28, 1985, at approximately 1550 CDT, an Engineered Safety Features (ESF) actuation occurred resulting in a Safety Injection (SI) into the Reactor Coolant System (RCS), and Main Steamline Isolation. The initiating signal was low steamline pressure on Steam Generator (S/G) "D". At the time of the event, the plant was in Hot Standby prior to initial criticality. All required ESF equipment responded properly.

An Unusual Event was declared and subsequently terminated. The appropriate federal, state and local agencies were notified.

The cause of the low steamline pressure signal has been determined to be an anticipatory trip generated by the rate-sensitive S/G pressure circuitry due to a decrease in steamline pressure when a Main Steamline Isolation Valve (MSLIV) was opened before pressure was equalized through the MSLIV bypass valves.

At no time during this event did conditions develop that might have posed a threat to the health and safety of the public.

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

On April 28, 1985, at approximately 1550 CDT, an Engineered Safety Features (ESF) actuation occurred resulting in a Safety Injection (SI) into the Reactor Coolant System (RCS), and a Main Steamline Isolation. The initiating signal was low steamline pressure on Steam Generator (S/G) "D".

At the time of the event, the plant was in Mode 3, Hot Standby, prior to initial criticality. The RCS was being maintained at 505-510 degrees F and 2100 psig. The pressurizer level was being manually controlled at approximately 27 percent. Pressurizer pressure was also being manually controlled. The steamline pressure was approximately 700 psig, with feedwater being supplied by the Motor Driven Startup Feed Pump, and the Steam Generator (S/G) "C" Power Operated Relief Valve (PORV) was open approximately 25 percent controlling temperature in the RCS. Testing was being performed on the Main Steamline Isolation Valves (MSLIV's) in accordance with surveillance procedure STS-AB-201, "Main Steam System Inservice Valve Test", and all four MSLIV's were closed. The MSLIV bypass valves had just been reopened, and the test performer requested that MSLIV AB-HV-11 be opened in order to continue with the surveillance test. The operator initiated the opening of AB-HV-11 and shortly thereafter, at approximately 1550 CDT, the Safety Injection and Main Steamline Isolation occurred.

All Engineered Safety Features equipment required to actuate responded properly, except for the Control Room Emergency Ventilation System which was already in operation due to a Technical Specification Action Statement regarding an inoperable radiation monitor. Three minor equipment problems were noticed. BM-HV-003, a S/G "C" Blowdown Isolation Valve, leaked through following closure at approximately 7000 lbm/hr. The status of SGL15B, a Penetration Room Cooler in the Auxiliary Building, did not display on the ESF status panel, although the cooler did function properly. Also, AL-HV-5, an auxiliary feed regulating valve on S/G "D" did not modulate smoothly.

An Unusual Event was declared and subsequently terminated in accordance with the Emergency Plan Implementing Procedures. The appropriate federal, state, and local agencies were notified.

Approximately 2000 gallons of water was injected into the RCS from the Refueling Water Storage Tank, causing pressurizer level to increase to approximately 61 percent and RCS pressure to increase to approximately 2340 psig. One Centrifugal Charging Pump was secured during this event in order to limit the RCS pressure transient. Nevertheless, the RCS pressure did reach the set point of the pressurizer Power Operated Relief Valves (PORV's), and both PORV's did lift. The temperature of the RCS decreased slightly and the Safety Injection was terminated at approximately 1557 CDT.

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

The initiating signal, low steamline pressure, has been attributed to the rate-sensitive nature of the steamline pressure circuitry. The operator opened the MSLIV before the pressure had equalized through the bypass valves and the result was a rapid decrease in pressure of approximately 10-15 psig in the steamline. This decrease in steam pressure signal was fed into the logic circuits, amplified by a factor of 10, and was sufficient to reach the low steamline pressure trip setpoint.

Work Requests were initiated to investigate the equipment problems that were noted during this event. The status of SGL15B did not indicate on the ESF panel due to a warped contact block which has been replaced. BM-HV-003 and AL-HV-5 have been reworked, and demonstrated to stroke and seat properly.

Although this event has been attributed to a personnel error, the rate sensitive nature of the circuitry contributed substantially to this event. The material of this LER has been incorporated into the Licensed Requalification Training Program in the Engineered Safety Features/Emergency Core Cooling System lecture. The rate-sensitive nature of the setpoint actuation will be stressed during the training conducted from May 31, 1985, through June 10, 1985. This information will also be covered in the Hot License Training Program currently in progress. In addition, this LER will be added to Operations Required Reading to emphasize the rate-sensitive nature of the steamline pressure circuitry.

There were no radiation levels present in excess of normal background, and at no time during this event did conditions develop that may have posed a threat to the health and safety of the public.

KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER
VICE PRESIDENT - NUCLEAR

May 24, 1985

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

Mr. R.P. Denise, Director
Wolf Creek Task Force
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

KMLNRC 85-126
Re: Docket No. STN 50-482
Subj: Licensee Event Report 85-021-00

Gentlemen:

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

Yours very truly,

Glenn L Koester

Glenn L. Koester
Vice President - Nuclear

GLK:dab

Enclosure

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

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