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)
D. C. COOK UNIT 2	0 5 0 0 0 3 1 6	1 OF 0 2

TITLE (4)

REACTOR TRIP

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)
1 1	1 9	8 4	8 4	— 0 3 0	— 0 0	1 2	1 1	8 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 9 6	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		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
A. A. BLIND TECHNICAL ENGINEERING SUPERINTENDENT	AREA CODE 6 1 6 — 4 6 5 - 5 9 0 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 NOVEMBER 19, 1984, UNIT 2 WAS OPERATING AT 96 PERCENT REACTOR THERMAL POWER WITH THE LOOP 3 STEAM GENERATOR FEEDWATER LEVEL BISTABLES FOR REACTOR PROTECTION SYSTEM CHANNEL III TRIPPED. THE BISTABLES WERE IN A TRIPPED CONDITION DUE TO THE INOPERABILITY OF THE LOOP 3 STEAM GENERATOR FEEDWATER LEVEL INDICATION.

AT APPROXIMATELY 0356 HOURS, A SPURIOUS ACTUATION OF THE REACTOR PROTECTION SYSTEM FEEDWATER/STEAM FLOW MISMATCH BISTABLE FOR THE LOOP 3 STEAM GENERATOR OCCURRED. THIS TRIPPED BISTABLE, IN COMBINATION WITH THE EXISTING TRIPPED CONDITION OF THE STEAM GENERATOR LEVEL BISTABLE, ACTIVATED THE REACTOR PROTECTION SYSTEM LOGIC AND PRODUCED A REACTOR TRIP.

THE BISTABLE AND ASSOCIATED FEEDWATER/STEAM FLOW TRANSMITTERS WERE SUBSEQUENTLY TESTED BUT NO REASON FOR THE SPURIOUS ACTUATION WAS FOUND. CONSEQUENTLY, NO CORRECTIVE ACTIONS ARE PLANNED.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
D. C. COOK UNIT 2	0 5 0 0 0 3 1 6	8 4	— 0 3 0	— 0 0	0 2 OF 0 2

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

ON NOVEMBER 19, 1984, UNIT 2 WAS OPERATING AT 96 PERCENT REACTOR THERMAL POWER WITH THE LOOP 3 STEAM GENERATOR FEEDWATER LEVEL BISTABLES FOR REACTOR PROTECTION SYSTEM CHANNEL III (IEEE COMPONENT FUNCTION IDENTIFIER = LS) TRIPPED. THE BISTABLES WERE IN A TRIPPED CONDITION DUE TO THE INOPERABILITY OF THE LOOP 3 STEAM GENERATOR FEEDWATER LEVEL TRANSMITTER BLP-132 (PER ACTION STATEMENT 7, TECHNICAL SPECIFICATION 3.3.3.1).

AT APPROXIMATELY 0356 HOURS, A SPURIOUS ACTUATION OF THE REACTOR PROTECTION SYSTEM FEEDWATER/STEAM FLOW MISMATCH BISTABLE (IEEE COMPONENT FUNCTION IDENTIFIER = FFS) FOR THE LOOP 3 STEAM GENERATOR OCCURRED. THIS TRIPPED BISTABLE, IN COMBINATION WITH THE EXISTING TRIPPED CONDITION OF THE STEAM GENERATOR LEVEL BISTABLE, ACTIVATED THE REACTOR PROTECTION SYSTEM LOGIC AND PRODUCED A REACTOR TRIP.

BASED ON REVIEW OF THE SEQUENCE OF EVENTS RECORD, THE FEEDWATER/STEAM FLOW MISMATCH BISTABLE SETPOINT WAS EXCEEDED FOR LESS THAN 0.018 SECONDS. NO RECORD EXISTS OF THE FEEDWATER FLOW FOR THAT INSTANT BECAUSE EVENT DURATION WAS LESS THAN THE RESOLUTION TIME REQUIRED FOR RECORDING THE DATA ON THE PLANT COMPUTER. THE ATTEMPT TO IDENTIFY ANY FAILED COMPONENTS DURING POST INCIDENT TESTING WAS UNSUCCESSFUL. SUBSEQUENTLY, THE DETERMINATION WAS MADE THAT THE EVENT ORIGINATED FROM AN INSTANTANEOUS ERRONEOUS SIGNAL FROM EITHER THE FEEDWATER FLOW TRANSMITTER,STEAM FLOW TRANSMITTER OR BISTABLE ASSOCIATED WITH THE FEEDWATER/STEAM FLOW MISMATCH LOGIC. THIS CONCLUSION WAS BASED ON THE EXTREMELY SHORT DURATION OF THE EVENT AND LACK OF ALARMS INDICATING FEEDWATER OR STEAM FLOW ABNORMALITIES.

DURING A CONTAINMENT INSPECTION FOLLOWING THE TRIP, IT WAS FOUND THAT THE PROBLEM WITH STEAM GENERATOR LEVEL TRANSMITTER, BLP-132, WAS CAUSED BY A STEAM LEAK AT THE VENT PLUG ON THE LEVEL TRANSMITTER REFERENCE LEG CONDENSING POT. THIS CONDITION WAS REPAIRED AND CORRESPONDING BISTABLE RESET PRIOR TO UNIT RESTART.

FOLLOWING THE TRIP INITIATION, ALL SAFETY SYSTEMS FUNCTIONED PROPERLY. FURTHER INVESTIGATION OF THE EVENT OR CORRECTIVE ACTIONS ARE NOT PLANNED.