(7.77)	LICENSEE EVENT REPORT  Attachment 1  4410-82-L-0061
-	CONTROL BLOCK: (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)
0 1	P A T M I 2 2 0 0 - 0 0 0 0 0 0 0 3 4 1 1 1 1 4 5 5 CAT 58
CON'T	REPORT L 6 0 5 0 0 0 3 2 0 7 1 0 2 8 8 2 6 1 2 0 1 8 2 9
	EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10
0 2	After initiating the River Water Pump House smoke detector portion of Surveillance
0 3	Procedure 4333-SA1 "Fire System Detector Instrument Functional Test" at 1500 hours on
0 4	October 28, 1982, the smoke detectors tested failed to provided the required trip
0 5	functions and alarms. The detectors were declared inoperable and the Action Statement
0 6	of Tech Spec 3.3.3.8 was entered. This event is considered reportable per Section
07	6.9.2 of the Technical Specifications. This event had no effect on the health and
0 8	safety of the public. This LER is similar to LER 82-13.
7 8	SYSTEM CAUSE CAUSE COMPONENT CODE SUBCODE SUBCODE SUBCODE
0 9 7 8	AB 10 E 12 A 3 I IN S T R U 14 P 15 Z 16  SEQUENTIAL OCCURRENCE REPORT REVISION
	(17) REPORT   8   2     -     0   3   6     -     0   3   6     -     0
	NUMBER 21 22 23 24 26 27 28 29 30 31 32  ACTION FUTURE EFFECT SHUTDOWN HOURS (22) ATTACHMENT NPRD-4 PRIME COMP. COMPONENT TAKEN ACTION ON PLANT METHOD HOURS (22) SUBMITTED FORM SUB. SUPPLIER MANUFACTURER
	B 8 X 19 Z 20 Z 21 0 0 0 0 Y 23 N 24 A 25 P 4 3 5 26 CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27
10	Investigation determined that the Fire Indicating Unit (FIU) which controls the smoke
111	Ldetectors and alarm/trip functions malfunctioned. Specifically, the high voltage dc
1 2	power supply of the FIU failed to provide proper voltage due to a capacitor failure.
1 3	The capacitor was replaced and the surveillance performed again successfully. The
1 4	smoke detectors were declared operable at 2130 hours on November 5, 1982.
[I]	STATUS SPOWER OTHER STATUS (30) METHOD OF DISCOVERY DESCRIPTION (32)    X   (28)   0   0   (29)   Recovery mode   B   (31)   Surveillance Test
	9 10 12 13 44 45 46 80
16	ELEASED OF RELEASE AMOUNT OF ACTIVITY 35 LOCATION OF RELEASE 36 N/A N/A
	PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION 39
7 8	0 0 0 37 Z 38 N/A  9 PERSONNEL INJURIES 13 80
1 8	NUMBER DESCRIPTION (41)  O O O (40)
7 8	SO SOF OR DAMAGE TO FACILITY 43 8212150044 821201
1 9	Z 42 PDR ADDCK 05000320 PDR 80
[3]	PUBLICITY ISSUED DESCRIPTION 45  N/A  NRC USE ONLY  N/A
7 8	9 10 68 69 80.5
	NAME OF PREPARER Steven D. Chaplin PHONE: (717) 948-8461

# LICENSEE EVENT REPORT NARRATIVE REPORT TMI-II LER 82-036/03L-0 EVENT DATE - October 28, 1982

## I. EXPLANATION OF OCCURRENCE

At 1500 hours on October 28, 1982, while performing semi-annual surveillance 4333-SAl on the fire detectors in the Unit 2 River Water Pump House (RWPH), all the detectors failed to test satisfactorily. This failure placed the unit in the Action Statement of Technical Specification Limiting Conditions for Operation (L.C.O.) 3.3.3.8, Table 3.3-11.

The detectors were tested satisfactorily and returned to operable status at 2130 hours on November 5, 1982. This event is considered reportable under Technical Specification 6.9.2.

This LER is similar in nature to LER 82-13.

## II. CAUSE OF THE OCCURRENCE

While the Unit 2 RWPH fire detectors system design provides multiple detectors and the Tech Spec L.C.O. requires only one to be operable, the system is vulnerable to a common mode of failure in the Fire Indicating Unit (FIU) high voltage power supply. In this case, capacitor C-5 of the high voltage power supply failed thus rendering all of the RWPH fire detectors inoperable.

The high voltage dc power to the fire detectors is electronically supervised to detect either a loss of the 250Vdc supply or a break in the lines to the detectors. If either occurs, a trouble alarm is actuated at both the local FIU panel and in the Control Room. However, the inoperability was a result of a partial failure at the 250Vdc power supply. Apparently, sufficient voltage remained so as to not trip the trouble alarms but still disable the fire detection system.

This LER is similar to LER 82-13 in which the transformer of the high voltage power supply in a Containment Building fire detection system malfunctioned. It resulted in rendering that fire detection system inoperable without generating trouble alarms.

# IV. CORRECTIVE ACTIONS TAKEN OR TO BE TAKEN

Immediate

An hourly fire watch was established as required by the Tech Spec L.C.O. Action Statement. Troubleshooting, repairing, and testing were accomplished within the allowable time limit of the Action Statement.

Long Term

GPU is examining the fire detection systems to determine the most appropriate action. This LER will be revised upon completion of the examination.

## V. COMPONENT FAILURE DATA

Capacitor C-5 40MFD, 450WV, 85°C, #75254 Manufacturer's Code