

WPSC (414) 433-1598
TELECOPIER (414) 433-5544



NRC-94-013
EASYLINK 62891993

WISCONSIN PUBLIC SERVICE CORPORATION

600 North Adams • P.O. Box 19002 • Green Bay, WI 54307-9002

February 7, 1994

10 CFR 50.73

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

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Reportable Occurrence 94-001-00

In accordance with the requirements of 10 CFR 50.73, "Licensee Event Report System," the attached Licensee Event Report for reportable occurrence 94-001-00 is being submitted.

Sincerely,

A handwritten signature in cursive script, appearing to read "C. A. Schrock".

C. A. Schrock
Manager-Nuclear Engineering

RTS/cjt

Attach.

cc - INPO Records Center
US NRC Senior Resident Inspector
US NRC, Region III

LER/COVERLTR.WP

9402170154 940207
PDR ADDCK 05000305
S PDR

Handwritten initials in cursive script, possibly "LEP" or "LEP/".

NRC FORM 366 <small>(5-92)</small>	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95
<h2 style="margin: 0;">LICENSEE EVENT REPORT (LER)</h2> <p style="margin: 0; font-size: small;">(See reverse for required number of digits/characters for each block)</p>		ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 05000305	PAGE (3) 1 OF 4
--	--------------------------------------	---------------------------

TITLE (4) Failure of Radiation Detector Results in Actuation of Steam Generator Blowdown Isolation

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	07	94	94	001	00	02	07	94	N/A	05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)								
		20.402(b)			20.405(c)			X 50.73(a)(2)(iv)		73.71(b)
POWER LEVEL (10)		000		20.405(a)(1)(i)			50.36(c)(1)			73.71(c)
		20.405(a)(1)(ii)			50.36(c)(2)			50.73(a)(2)(vii)		OTHER
		20.405(a)(1)(iii)			50.73(a)(2)(i)			50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)
		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 Lynne M. Raleigh - Plant Nuclear Engineer	TELEPHONE NUMBER (Include Area Code) 414 388-2560
--	---

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
X	IL	DET	T161	Y					

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

The following event is reportable as an actuation of steam generator blowdown isolation valves which are engineered safety features. On January 7, 1994 at 0100 hours, the condenser air ejector radiation monitor, R-15, suddenly increased from its normal reading of 60 counts per minute (CPM) to 1.0E5 CPM which activated its high alarm. The high alarm from the monitor caused the steam generator blowdown isolation valves and the steam generator blowdown sample isolation valves to close as designed. The plant was in cold shutdown when the actuations occurred.

The high alarm signal from R-15 and the subsequent associated engineered safety feature actuations were caused by the failure of the monitor's Geiger Mueller tube. The tube was replaced during the monitor repair process. Two additional electrical components in R-15's circuitry were conservatively replaced because they had apparently experienced mild degradation.

The radiation monitor was returned to service on January 13, 1994 at 1700 hours.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Kewaunee Nuclear Power Plant.	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		94	- 001 -	00	

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

DESCRIPTION OF EVENT

At 0100 hours on January 7, 1994, with the plant in cold shutdown, an automatic closure of the B steam generator blowdown isolation valves [ISV] (BT-2B and BT-3B) and steam generator blowdown sample isolation valves (BT-31A, BT-31B, BT-32A, BT-32B) occurred. The A steam generator blowdown isolation valves (BT-2A and BT-3A) were closed prior to the event. The actuation occurred when the condenser air ejector radiation monitor [MON], R-15, failed causing the count rate to increase from 60 counts per minute (CPM) to greater than 1.0E5 CPM. This count rate exceeds R-15's high alarm setpoint. Radiation monitor R-15 is installed directly in the condenser air ejector effluent stream and is intended to provide early indication of a steam generator tube leak.

In response to the alarm, the operators immediately implemented operating procedure A-RM-45, "Abnormal Radiation Monitoring System." In accordance with the procedure, operations verified that all automatic actuations occurred as designed. The Health Physics and Chemistry groups were notified of the event. Local radiation readings were found to be normal; therefore, R-15 was declared out of service and steam generator blowdown was returned to the pre-event lineup.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Kewaunee Nuclear Power Plant	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 4
		94	- 001	- 00	

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

CAUSE OF EVENT

The actuation of steam generator blowdown isolation and sampling isolation was caused by the failure of the radiation monitor's Geiger Mueller tube. The exact failure mechanism could not be conclusively determined, however this premature tube failure will be considered in our ongoing assessment of R-15's performance.

ANALYSIS OF THE EVENT

This report is being submitted in accordance with 10 CFR 50.73(a)(2)(iv) as an actuation of steam generator blowdown isolation valves which are engineered safety features. Blowdown isolation is considered an engineered safety feature because the valves receive a signal to close when an auxiliary feedwater pump receives a signal to start. The valves are required to close to ensure maintenance of steam generator inventory under postaccident conditions. The circuitry which initiates closure of the blowdown isolation valves on a condenser air ejector high radiation signal is not an engineered safety feature. This event was also reported in accordance with 10 CFR 50.72(b)(2)(ii) on January 7, 1994 at 0216 hours.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Kewaunee Nuclear Power Plant	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		94	- 001 -	00	

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

Since the steam generator blowdown isolation valves and the steam generator blowdown sample isolation valves closed as designed and the actuations did not place the plant in an unanalyzed condition, there were no safety implications associated with this event.

CORRECTIVE ACTIONS

The failed detector was replaced and the monitor returned to service at 1700 hours on January 13, 1994. Two additional components were conservatively replaced because they had apparently experienced mild degradation.

ADDITIONAL INFORMATION : None.

SIMILAR EVENTS:

- LER 93-002 "Failure of Radiation Detector Results in Actuation of Steam Generator Blowdown Isolation"
- LER 89-010 "Improper Detector Installation and a Loose Electric Connection Cause Two Separate Actuations of Steam Generator Blowdown Isolation (An ESF System)"

EQUIPMENT FAILURES:

Detector: Geiger Mueller Tube manufactured by TGM Detection, Inc.

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9402170154 DOC. DATE: 94/02/07 NOTARIZED: NO DOCKET #
 FACIL: 50-305 Kewaunee Nuclear Power Plant, Wisconsin Public Service 05000305
 AUTH. NAME AUTHOR AFFILIATION
 RALEIGH, L.M. Wisconsin Public Service Corp.
 SCHROCK, C.A. Wisconsin Public Service Corp.
 RECIPIENT NAME RECIPIENT AFFILIATION

SUBJECT: LER 94-001-00: on 940107, condenser air ejector radiation monitor, R-15, suddenly increased. Caused by failure of monitor Geiger Mueller tube. Tube replaced during monitor repair process. W/940207 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: S
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD3-3 LA LAUFER, R	1 1 1 1	PD3-3 PD	1 1
INTERNAL:	ACRS	2 2	AEOD/DOA	1 1
	AEOD/DSP/TPAB	1 1	AEOD/ROAB/DSP	2 2
	NRR/DE/EELB	1 1	NRR/DE/EMEB	1 1
	NRR/DORS/OEAB	1 1	NRR/DRCH/HHFB	1 1
	NRR/DRCH/HICB	1 1	NRR/DRCH/HOLB	1 1
	NRR/DRIL/RPEB	1 1	NRR/DRSS/PRPB	2 2
	NRR/DSSA/SPLB	1 1	NRR/DSSA/SRXB	1 1
	REG FILE 02	1 1	RES/DSIR/EIB	1 1
	RGN3 FILE 01	1 1		
EXTERNAL:	EG&G BRYCE, J.H	2 2	L ST LOBBY WARD	1 1
	NRC PDR	1 1	NSIC MURPHY, G.A	1 1
	NSIC POORE, W.	1 1	NUDOCS FULL TXT	1 1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,
 ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION
 LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED
 TOTAL NUMBER OF COPIES REQUIRED: LTTR 30 ENCL 30

R
I
D
S
/
A
D
D
S
/
A
D
D
S
R
I
D
S
/
A
D
D
S



WISCONSIN PUBLIC SERVICE CORPORATION

600 North Adams • P.O. Box 19002 • Green Bay, WI 54307-9002

February 7, 1994

10 CFR 50.73

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

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Reportable Occurrence 94-001-00

In accordance with the requirements of 10 CFR 50.73, "Licensee Event Report System," the attached Licensee Event Report for reportable occurrence 94-001-00 is being submitted.

Sincerely,

A handwritten signature in cursive script, appearing to read "C. A. Schrock".

C. A. Schrock
Manager-Nuclear Engineering

RTS/cjt

Attach.

cc - INPO Records Center
US NRC Senior Resident Inspector
US NRC, Region III

LER/COVERLTR.WP

9402170154 940207
PDR ADOCK 05000305
S PDR

Handwritten initials in cursive script, possibly "I. P. D." with a vertical line below.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Kewaunee Nuclear Power Plant		DOCKET NUMBER (2) 05000305	PAGE (3) 1 OF 4
---	--	-------------------------------	--------------------

TITLE (4) Failure of Radiation Detector Results in Actuation of Steam Generator Blowdown Isolation

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	07	94	94	001	00	02	07	94	N/A	05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)										
POWER LEVEL (10) 000	20.402(b)			20.405(c)			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	
	20.405(a)(1)(iii)			50.73(a)(2)(i)			50.73(a)(2)(viii)(A)			(Specify in Abstract below and in Text, NRC Form 366A)	
	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 Lynne M. Raleigh - Plant Nuclear Engineer	TELEPHONE NUMBER (Include Area Code) 414 388-2560
---	--

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
X	IL	DET	T161	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

The following event is reportable as an actuation of steam generator blowdown isolation valves which are engineered safety features. On January 7, 1994 at 0100 hours, the condenser air ejector radiation monitor, R-15, suddenly increased from its normal reading of 60 counts per minute (CPM) to 1.0E5 CPM which activated its high alarm. The high alarm from the monitor caused the steam generator blowdown isolation valves and the steam generator blowdown sample isolation valves to close as designed. The plant was in cold shutdown when the actuations occurred.

The high alarm signal from R-15 and the subsequent associated engineered safety feature actuations were caused by the failure of the monitor's Geiger Mueller tube. The tube was replaced during the monitor repair process. Two additional electrical components in R-15's circuitry were conservatively replaced because they had apparently experienced mild degradation.

The radiation monitor was returned to service on January 13, 1994 at 1700 hours.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Kewaunee Nuclear Power Plant	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		94	- 001 -	00	

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

DESCRIPTION OF EVENT

At 0100 hours on January 7, 1994, with the plant in cold shutdown, an automatic closure of the B steam generator blowdown isolation valves [ISV] (BT-2B and BT-3B) and steam generator blowdown sample isolation valves (BT-31A, BT-31B, BT-32A, BT-32B) occurred. The A steam generator blowdown isolation valves (BT-2A and BT-3A) were closed prior to the event. The actuation occurred when the condenser air ejector radiation monitor [MON], R-15, failed causing the count rate to increase from 60 counts per minute (CPM) to greater than 1.0E5 CPM. This count rate exceeds R-15's high alarm setpoint. Radiation monitor R-15 is installed directly in the condenser air ejector effluent stream and is intended to provide early indication of a steam generator tube leak.

In response to the alarm, the operators immediately implemented operating procedure A-RM-45, "Abnormal Radiation Monitoring System." In accordance with the procedure, operations verified that all automatic actuations occurred as designed. The Health Physics and Chemistry groups were notified of the event. Local radiation readings were found to be normal; therefore, R-15 was declared out of service and steam generator blowdown was returned to the pre-event lineup.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Kewaunee Nuclear Power Plant	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 4
		94	- 001	- 00	

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

CAUSE OF EVENT

The actuation of steam generator blowdown isolation and sampling isolation was caused by the failure of the radiation monitor's Geiger Mueller tube. The exact failure mechanism could not be conclusively determined, however this premature tube failure will be considered in our ongoing assessment of R-15's performance.

ANALYSIS OF THE EVENT

This report is being submitted in accordance with 10 CFR 50.73(a)(2)(iv) as an actuation of steam generator blowdown isolation valves which are engineered safety features. Blowdown isolation is considered an engineered safety feature because the valves receive a signal to close when an auxiliary feedwater pump receives a signal to start. The valves are required to close to ensure maintenance of steam generator inventory under postaccident conditions. The circuitry which initiates closure of the blowdown isolation valves on a condenser air ejector high radiation signal is not an engineered safety feature. This event was also reported in accordance with 10 CFR 50.72(b)(2)(ii) on January 7, 1994 at 0216 hours.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Kewaunee Nuclear Power Plant	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		94	001	00	

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

Since the steam generator blowdown isolation valves and the steam generator blowdown sample isolation valves closed as designed and the actuations did not place the plant in an unanalyzed condition, there were no safety implications associated with this event.

CORRECTIVE ACTIONS

The failed detector was replaced and the monitor returned to service at 1700 hours on January 13, 1994. Two additional components were conservatively replaced because they had apparently experienced mild degradation.

ADDITIONAL INFORMATION : None.

SIMILAR EVENTS:

- LER 93-002 "Failure of Radiation Detector Results in Actuation of Steam Generator Blowdown Isolation"
- LER 89-010 "Improper Detector Installation and a Loose Electric Connection Cause Two Separate Actuations of Steam Generator Blowdown Isolation (An ESF System)"

EQUIPMENT FAILURES:

Detector: Geiger Mueller Tube manufactured by TGM Detection, Inc.