Catawba Nuclear Station	(RC Form) 9-83)	366				LIC	CENSEE EVE	NT RE	PORT	(LER)	U.S.	APPROV	REGULAT ED OMB N		
Auxiliary Building Filtered Exhaust System Intuation Due to Personnel Error EVENT DATE (8) LER NUMBER (8) PEPORT DATE (7) OTHER PACILITY NAMES DOCKET NUMBER(S) N/A O 5 0 0 0 0 O 1 1 8 6 8 6 0 1 9 0 0 0 5 0 9 8 6 O 5 0 0 0 0 O 5 0 0 0 0 O 4 1 1 8 6 8 6 0 1 9 0 0 0 5 0 9 8 6 O 5 0 0 0 0 0 O 5 0 0 0 0 POWER LEVEL (10) POWER LEVEL (10) 20 406(a)(11)(a) 50 36(a)(11)(a) 50 37(a)(12)(a)(a) EICENSEE CONTACT FOR THIS LER (12) CAUSE SYSTEM COMPONENT MANUFAC TO NAROS TURER REPORT ASLE TO NAROS CAUSE SYSTEM COMPONENT MANUFAC TO NAROS TO NAROS CAUSE SYSTEM COMPONENT MANUFAC TO NAROS TO NAROS CAUSE SYSTEM COMPONENT MANUFAC TO NAROS TO NAROS NANDEAL TO NAROS CAUSE SYSTEM COMPONENT MANUFAC TO NAROS TO NAROS CAUSE SYSTEM COMPONENT MANUFAC TO NAROS TO NAROS CAUSE SYSTEM COMPONENT MANUFAC TO NAROS TO NAROS TO NAROS MONTH DAY M	ACILITY !	NAME (1)									DOCKET NUMBE	R (2)		PA	GE (3)
Auxiliary Building Filtered Exhaust System Intuation Due to Personnel Error EVENT DATE (8) LER NUMBER (8) PEPORT DATE (7) OTHER PACILITY NAMES DOCKET NUMBER(S) N/A O 5 0 0 0 0 O 5 0 9 8 6 O 5 0 0 0 0 O 5 0 0 0 0 O 5 0 0 0 0 O 5 0 0 0 0 O 5 0 0 0 0 O 5 0 0 0 0 POWER 1 20.405(a)(11)(b) POWER LEVEL (10) 100 1 0 0 20.405(a)(11)(b) 20.405(a)(11)(b) 50.73(a)(2)(b) 20.405(a)(11)(b) 50.73(a)(2)(b) DOCKET NUMBER(S) N/A O 5 0 0 0 0 O 5 0 0 0 0 O 5 0 0 0 0 THIS REPORT IS SUBMITTED PURSUANT TO THE RECUIREMENTS OF 10 CFR \$ (Check one or more of the following) (11) POWER LEVEL (10) 1 20.405(a)(11)(b) 50.73(a)(2)(b) 20.405(a)(11)(b) 50.73(a)(2)(b) S0.73(a)(2)(b) S0.73(a)(2)(b) S0.73(a)(2)(b) DOCKET NUMBER(S) TO STAN (20) TO STAN (20) TO STAN (20) TO STAN (20) S0.73(a)(2)(b) S0.73(a)(2)(b) S0.73(a)(2)(b) S0.73(a)(2)(b) CAUSE SYSTEM COMPONENT MANUFAC TO NARDS TURER SUPPLEMENTAL REPORT EXPECTED (14) SUPPLEMENTAL REPORT ASLE TO NARDS CAUSE SYSTEM COMPONENT MANUFAC TO NARDS TO NARDS SUPPLEMENTAL REPORT EXPECTED (14)	Catav	wba Ni	ucle	ar Sta	ation, U	nit 1					0 15 10 10	101	4 11 13	1 0	F OI
SYSTEM COMPONENT MANUFAC REPORT EXPECTED (14) PROPORT DATE (7) OTHER FACILITY IS INVOLVED (8)	ITLE (4)												11112	1 1-	1 01
SVENT DATE (8) LER NUMBER (8) PEPORT DATE (7) OTHER FACILITY IS INVOLVED (8)	Aux	iliar	y Bu	ilding	Filter	ed Exha	ust System	Actu	ation	Due to	Personnel	Err	or		
NUMBER N						THE RESERVE OF THE PARTY OF THE	The same of the sa	an economism		White the same of	the same and the same and the	THE REAL PROPERTY AND ADDRESS.			
O 4 1 1 8 6 8 6 0 1 9 0 0 0 5 0 9 8 6 OPERATING MODE (8) 1 20.402(b) 20.406(a)(11(i) 20.406(a)(11)(i) 20.40	MONTH	DAY	YEAR	YEAR	SEQUENTIA	REVISION NUMBER	MONTH DAY	FAR		FACILITY NA	AMES	DOCK	ET NUMBER	R(S)	
O 4 1 1 8 6 8 6 0 1 9 0 0 0 5 0 9 8 6 O 5 0 0 0 0 O 5 0 0 0 O 5 0 0 0 O 5 0 0 0 O 5 0 0 0 O 5 0 0 0 O 5 0 0 0 O 5 0 0 0 O 5 0										N/A		0 15	51010	101	1 1
MODE (8) 1 20.402(b) 20.406(a) X 50.73(a)(2)(w) 73.71(b)	0 4		8 6	8 6	d 1 9	-010	0 5 0 9	8 6				0 18	51010	101	1 1
POWER LEVEL 20.406(a)(1)(i) 50.36(a)(1) 50.36(a)(1) 50.73(a)(2)(ii) 73.71(a) 73.71(a				THIS REPO	RT IS SUBMITT	ED PURSUANT	TO THE REQUIREME	NTS OF 10	CFR 8: /	Check one or more	of the fallowing)	(99)	-	-	
10 1 0 0 20.408(a)(1)(ii) 50.38(a)(2) 50.73(a)(2)(vii) X OTHER (Specify in Joseph in Text, A Joseph in	MOO	(B)	1	20.403	t(b)		20.406(c)		X	50.73(a)(2)(iv)			73.71(b)		
101 1 0 0 20 408(a)(1)(ii) 50.73(a)(2)(ii) 50.73(a)(2)(iii) 50.73(a)(2)(iii) 50.73(a)(2)(iii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiii) 50.73(a)(2)(iiiiiiii) 50.73(a)(2)(iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii				20,406	H(m)(1)(i)		50.36(e)(1)			50.73(a)(2)(v)			73.71(e)		
20.408(a)(1)(iii) 50.73(a)(2)(ii) 50.73(a)(2)(iii) 50.73(a)(2)		111	010	20.406	He)(1)(H)		50.36(e)(2)			50.73(a)(2)(vii)					
AREA CODE COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) CAUSE SYSTEM COMPONENT MANUFAC. TO NPROS SUPPLEMENTAL REPORT EXPECTED (14) SUPPLEMENTAL REPORT EXPECTED (14)				_			50.73(e)(2)(i)			50.73(a)(2)(viii)	(A)			7 441, 747	C Form
CAUSE SYSTEM COMPONENT MANUFAC TURER TO NPROS SUPPLEMENTAL REPORT EXPECTED (14) LICENSEE CONTACT FOR THIS LER (12) TELEPHONE NUMBER AREA CODE 7 0 4 3 7 3 - 7 5 CAUSE SYSTEM COMPONENT MANUFAC TURER TO NPROS SUPPLEMENTAL REPORT EXPECTED (14)			-	_		_				50.73(a)(2)(viii)	(8)	50.	72(b)	(2)(i	i)
ROSET W. Quellette. Associate Engineer. Licensing 7 0 4 3 7 3 - 7 5 COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) CAUSE SYSTEM COMPONENT MANUFAC TURER TO NPROS CAUSE SYSTEM COMPONENT MANUFAC TURER TO NPROS AND NAME TO NPROS CAUSE SYSTEM COMPONENT MANUFAC TURER TO NPROS AND NAME TO				20.406	(a)(1)(v)					50.73(a)(2)(x)					
ROSET W. Quellette. Associate Engineer. Licensing 7 0 4 3 7 3 - 7 5 COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) CAUSE SYSTEM COMPONENT MANUFAC. TURER TO NPROS CAUSE SYSTEM COMPONENT MANUFAC. TURER TO NPROS TO NPRO	AME					L	ICENSEE CONTACT	FOR THIS	LER (12)						
Roger W. Quellette, Associate Engineer, Licensing 7 0 4 3 7 3 - 7 5 COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) CAUSE SYSTEM COMPONENT MANUFACTURER TO NPROS CAUSE SYSTEM COMPONENT MANUFACTURER TO NPROS TO											AREA CODE		HONE NUM	BER	
CAUSE SYSTEM COMPONENT MANUFAC REPORTABLE TO NPROS CAUSE SYSTEM COMPONENT MANUFAC TURER TO NPROS TO NPROS SUPPLEMENTAL REPORT EXPECTED (14)	Danas	/	0 1	1											
CAUSE SYSTEM COMPONENT MANUFAC. TURER TO NPROS CAUSE SYSTEM COMPONENT MANUFAC. TURER TO NPROS SUPPLEMENTAL REPORT EXPECTED (14)	VOSEL	-0-	uner	Terre.	ASSOC1	ONE LINE FOR	neer, Lice	nsin	Seecoles	0 IN THIS 8550	171014	13]	13 F	1715	1310
SUPPLEMENTAL REPORT EXPECTED (14)						T		TAILURE	DESCRIBE	D IN THIS KEPO	MT (13)		-		
	CAUSE S	YSTEM	СОМРО	NENT				CAUSE	SYSTEM	COMPONENT				**	
		1	1.1		111										
											+	+	-		
		1	11	1	111				1	111	1111				
THE PARTY OF THE P					SUPPLEM	ENTAL REPORT	EXPECTED (14)						MONTH	LDAY	YEAR
EXPECTED SUBMISSION	_										SUBMIS	RION		- UAT	TEAR
YES (If yet, complete EXPECTED SUBMISSION DATE) X NO DATE (15) ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)							1 1				DATE	(15)	1	1	1

On April 11, 1986, at 1117 hours, while performing the monthly transfer source calibration for the Control Room Air Intake Location A Radiation Monitor (EMF-43A), personnel inadvertently tripped the breaker supplying control power to EMF-43A and the Auxiliary Building Ventilation (VA) Radiation Monitor (EMF-41). The loss of power to EMF-41 initiated a Trip 2 actuation and placed the VA Filtered Exhaust Fans in the filter mode. The swapping of the VA Filtered Exhaust Fans from the bypass mode to the filter mode constitutes an Engineered Sareguard Feature actuation. The breaker was reset and the VA Filtered Exhaust Fans were returned to the bypass mode at 1202:30 hours. The unit was at 100% power at the time of this incident.

This incident is assigned Cause Code A, Personnel Error. A technician, while removing an output blocking jumper during the calibration of EMF-43A, inadvertently brought the jumper into contact with another terminal. This resulted in the tripping of the breaker supplying control power to EMF-43A and EMF-41.

This incident is reportable pursuant to 10 CFR 50.72, Section (b)(2)(ii) and 10 CFR 50.73, Section (a)(2)(iv).

8605140134 860509 FDR ADOCK 05000413 S PDR IE 27

		366	

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104 EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)	PAGE (3)
		YEAR SEQUENTIAL REVISION NUMBER NUMBER	
Catawba Nuclear Station, Unit 1	0 5 0 0 0 4 1 3	816 - 01119 - 010 0	0 1 2 OF 0 13

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

BACKGROUND

The Auxiliary Building Filtered Exhaust System is the portion of the Auxiliary Building Ventilation (VA) System (EIIS:VF) that serves areas of the Auxiliary Building which are subject to potential contamination. During normal plant operation, the two filtered exhaust trains operate as two 50% capacity components. Each filter train is equipped with a bypass section, with this being the normal mode of operation. Upon indication of a high radiation level from the VA Radiation Monitor (EMF-41), the system will automatically swap to direct air flow through the filter trains. The swap from the bypass mode to the filter mode constitutes an Engineered Safeguard Feature Actuation.

All terminals and breakers associated with this incident are in Bays 1 and 2 of the unit one Process Radiation Monitor Cabinet located in the Control Room. They and their identification numbers are vendor supplied. Breaker 2CB4 supplies control power to EMF-41 and the Control Room Air Intake Location A Radiation Monitor (EMF-43A). The loss of control power to either EMF will result in a Trip 2 actuation for that EMF.

DESCRIPTION OF INCIDENT

On April 11, 1986, personnel started the monthly transfer source calibration for EMF-43A per procedure IP/0/B/3314/10, Single Range Beta Activity Monitor Transfer Calibration. After completion of the actual calibration, the personnel attempted to place EMF-43A back in service. At approximately 1117 hours, a technician removed the output blocking jumper from EMF-43A. Immediately, breaker 2CB4 tripped resulting in an EMF-41 Trip 2 actuation due to a loss of control power. At 1117:30 hours, the VA Filtered Exhaust Fans automatically swapped from the bypass mode to the filter mode. Breaker 2CB4 was reset at approximately 1125 hours. At 1202:30 hours, the VA Filtered Exhaust Fans were returned to the bypass mode.

CONCLUSIONS

This incident is assigned Cause Code A, Personnel Error. In accordance with IP/0/B/3314/10, a jumper was placed across terminals 1TB14-14 and 1TB14-15 to block the control actions of EMF-43A. An external test input was then used to perform the calibration. While attempting to place the EMF back in service, the technician removed the jumper from terminal 1TB14-14 and inadvertently brought the jumper into contact with terminal 1TB14-13. Terminal 1TB14-13 is a terminal located directly adjacent to terminal 1TB14-14. The resulting electrical short circuit tripped breaker 2CB4 causing an EMF-41 Trip 2 actuation. This actuation resulted in the swap of the VA Filtered Exhaust Fans from the bypass mode to the filter mode. Lighting was sufficient in the work area and was not a factor in this incident.

NRC Form 366A	 	- 6		•	
	 10.	Evis	-	264	

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104 EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)	PAGE (3)
		YEAR SEQUENTIAL REVISION NUMBER	
Catawba Nuclear Station, Unit 1	0 5 0 0 0 4 1 1	3 8 16 - 0 1 19 - 0 10 6	013 OF 013

On July 12, 1985, an Operations and Maintenance Reminder was issued by INPO describing the use of jumpers with circuit switches to prevent the inadvertent actuation or grounding during installation and removal. The use of this type of jumper may have prevented the occurrence of this incident.

There has been no other incidents of this type investigated at Catawba.

CORRECTIVE ACTION

- (1) Breaker 2CB4 was reset.
- The VA Filtered Exhaust Fans were returned back to the bypass mode.
- (3) A memorandum to all appropriate personnel will be issued emphasizing the need to exercise extreme care when installing and removing jumpers.
- (4) The feasibility of using jumpers with circuit switches for testing, calibrating, and other inplant use will be investigated.

SAFETY ANALYSIS

Upon receiving the EMF-41 Trip 2 signal, the VA Filtered Exhaust Fans automatically swapped to the filter mode as designed. In this alignment, all VA exhaust would have been routed through carbon filters prior to release out the unit vent. A detection of radiation in the unit vent by the unit vent radiation monitors would have secured all VA fans, except if a simultaneous Safety Injection (Ss) Signal had occurred. The Ss signal will ensure that the VA Filtered Exhaust Fans are in service and in the filter mode.

The health and safety of the public were not affected by this incident.

DUKE POWER GOMPANY

P.O. BOX 33189 CHARLOTTE, N.C. 28242

HAL B. TUCKER VICE PRESIDENT NUCLEAR PRODUCTION TELEPHONE (704) 373-4531

May 9, 1986

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

Subject: Catawba Nuclear Station, Unit 1

Docket No. 50-413

Gentlemen:

Pursuant to 10 CFR 50.73 Section (a) (1) and (d), attached is Licensee Event Report 413/86-19 concerning an automatic swap of the Auxiliary Building Filtered Exhaust fans from the bypass mode to the filter mode due to a personnel error. This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

#B Tuch 1-161

Hal B. Tucker

RWO:slb

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator U. S. Nuclear Regulatory Commission Region II 101 Marietta Street, NW, Suite 2900 Atlanta, Georgia 30323

> American Nuclear Insurers c/o Dottie Sherman, ANI Library The Exchange, Suite 245 270 Farmington Avenue Farmington, CT 06032

M&M Nuclear Consultants 1221 Avenue of the Americas New York, New York 10020

INPO Records Center Suite 1500 1100 Circle 75 Parkway Atlanta, Georgia 30339

NRC Resident Inspector Catawba Nuclear Station JE27