Duke Power Company McGuire Nuclear Generation Department 12700 Hagers Ferry Road (MG01VP) Huntersville, NC 28078-8985

T. C. McMEEKIN Vice President (704)875-4800 (704)875-4809 Fax



DUKE POWER

DATE: March 4, 1996

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

Subject: McGuire Nuclear Station Unit 1 and 2 Docket No. 50-369 Licensee Event Report 369/96-01, Revision 0 Problem Investigation Process No.: 0-M96-0314

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a) (1) and (d), attached is Licensee Event Report 369/96-01, Revision 0, concerning a Unit 1 Manual Reactor Trip. This report is being submitted in accordance with 10 CFR 50.73 (a) (2) (iv). This event is considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

McMeekin

JWP/bcb

Attachment

cc: Mr. S.D. Ebneter Administrator, Region II U.S. Nuclear Regulatory Commission 101 Marietta St., NW, Suite 2900 Atlanta, GA 30323

> Mr. Victor Nerses U.S. Nuclear Regulatory Commission Office of Nuclear Reactor Regulation Washington, D.C. 20555

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

Mr. George Maxwell NRC Resident Inspector McGuire Nuclear Station

5622 "

110061 9603120259 960304 PDR ADOCK 05000369 S PDR bxc: B. L. Walsh (EC11C) Z. L. Taylor (CNS) G. A. Copp (EC050) J. I. Glenn (MG02ME) P. R. Herran (MG01VP) C. B. Davis (MG01CP) J. E. Burchfield (ONS Reg Compliance) G. H. Savage (EC06E) G. B. Swindlehurst (EC11-0842) C. M. Misenheimer (EC08I) R. F. Cole (EC05N) J. M. Frye (EC05N) T. G. Becker (PB02L) P. M. Abraham (EC08I) R. B. White (MG01VP) L. V. Wilkie (ON03SR) D. P. Kimball (CN05SR) K. L. Crane (MG01RC) R. N. Casler (EC05N) NSRB Support Staff (EC05N)

FACULTY NAME (1) DOMENTAL PROJECT NUMBER (2) DOMENTAL PROJECT NUMBER (2) McGuire Nuclear Station Unit 1 0 5 0 0 0 369 1 of 7 TITLE (4) 0 5 0 0 0 369 1 of 7 A Unit 1 Manual Reactor Trip Was Initiated As A Result Of An Equipment Failure Caused By An Unknown EVENT DATE (6) IFE NUMBER (6) OTHER FACILITIES INVOLVED (8) Month Image: Caused By An Unknown Image: Caused By An Unknown 0 5 0 0 0 OU 03 04 96 N/A 0 5 0 0 0 OO 03 04 96 N/A 0 5 0 0 0 OPERATING 1 1 Resource Caused By An Unknown Image: Caused By An Unknown Involution 1 Resource Caused By An Unknown 0 5 0 0 0 Image: Caused By An Unknown Image: Caused By An Unknown Involution 1 20 405(0) 1 20 405(0) S 0 70(0) S 0 70(0) Image: Caused By An Unknown Involution 1 20 405(0) S 0 70(0) S 0 70(0) S 0 70(0) Image: Caused By An Unknown Involution 20 405(0) 1 20 405(0) S 0 70(0) S 0 70(0) S 0 70(0) Image: Caused By An Unknown<	NRC FO	RM 306		LIC	ENS	EE EVENT	RE	U.S. NUCLEA	LER)	LATOR	YCO	MISSION	EMFLCAST	ESTIMATED BU MANDATORY IN REPORTED LES ICENSING PRO COMMENTS RE ND RECORDS REGULATORY (THE PAPERWO	APPROVED BY EXPIR RDEN PER RESPONSI IFORMATION COLLEC ISONS LEARNED ARE XCESS AND FED BACK GARDING BURDEN ES MANAGEMENT BRAN COMMISSION, WASHIN RK REDUCTION PROJ	COMBINO. 2 RES 04/30/9E E TO COMP TION REQL INCORPOR (TO INDUS STIMATE TO CH (T-6 F33 VGTON, DC ECT (3150-1	150-0104 LY WITH TH EST: 50.01 ATED INTO TRY FORM THE INFO), U.S. NUC 20555-000 0104), OFFI	IIS IRS. THE VARD RMATION ILEAR 1. AND TO CE OF	
Machine Nuclear Station Unit 1 05000369 1 of 7 TITLE (4) 05000369 1 of 7 TITLE (4) A Unit 1 Manual Reactor Trip Was Initiated As A Result Of An Equipment Failure Caused By An Unknown 000000000000000000000000000000000000	FACILI	TY NAM	1E (1)	~									1.	DOC	AND BUDGET, WASHI KET NUMBER (2)	NGTON, DC	20503		
TITLE (4) A Unit 1 Manual Reactor Trip Was Initiated As A Result Of An Equipment Failure Caused By An Unknown EVENT DATE (5) LER NUMBER (6) REPORT DATE (7) OTHER FACILITIES INVOLVED (8) Wenth GAV YEAR OCCUT HUMBER (6) OCCUT HUMBER (7) 02 03 96 96 001 00 03 04 96 N/A 05000 02 03 96 96 001 00 03 04 96 N/A 05000 0000100 1 20040800 PURSUANT TO THE REQUERT IS SUBATTED PURSUANT TO THE REQUERMENTS OF 100FR (Cfnek one or more of the following (11) 1737100 057301200 737100	McGu	IIre Nuc	clear	Sta	tion Ur	nit 1								0 5	000 369		1 of 7		
Average Description: OPERATING Construction Construning Construction	ALIDI	(4) t 1 Mar	leur	Rea	ctor Tr	in Was Initiata	Ab		~							l.			
Marker	EVE	NT DAT	E (5)	Tied		LER NUMBER	R (6)	s A nesuli	BE	PORT		TE (7)	T	Caused E	Sy An Unknown		0.10		
02 03 96 96 001 00 03 04 96 NA 05000 0PERATING MODE (0) 1 20.405(0) 20.405(0) 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.73(0) 20.73(0	MONTH DAY YEAR YEAR SEQUENTIAL NUMBER			T	REVISION MINDER	MON	MONTH DAY YEAR				FACILIT	Y NAME	DOCKET	NUMBER	S)				
02 03 96 96 001 00 03 04 96 N/A 05000 OPERATING MODE (9) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.405(0) 1 20.73(0)					2.11	in the second seco		NUMBER	1.			6				05000			
02 03 96 96 001 00 03 04 96 N/A 05000 OPERATING 1 118 REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF IG CFR (Check one or more of the following) (11) 72.71(b) POWER 20.402(b) 20.405(c) X 50.73(a)(2)(w) 73.71(c) POWER 20.405(a)(1)(b) 50.35(c)(2) 50.73(a)(2)(w) 73.71(c) EVEN (10) 20.405(a)(1)(b) 50.73(a)(2)(w) 50.73(a)(2)(w) 73.71(c) 20.405(a)(1)(w) 20.405(a)(1)(w) 50.73(a)(2)(w) 50.73(a)(2)(w) 73.71(c) 20.405(a)(1)(w) 20.405(a)(1)(w) 50.73(a)(2)(w) 50.73(a)(2)(w) 73.71(c) 20.405(a)(1)(w) 20.405(a)(1)(w) 50.73(a)(2)(w) 50.73(a)(2)(w) 80.73(a)(2)(w) 80.7						-	-									1000	00		
Intermediation Intermediation Intermediation Intermediation Intermediation MODE (9) 1 20.402(b) 20.405(a)(11)(b) 20.405(a)(11)(b) 20.405(a)(11)(b) 50.36(c)(1) 50.73(a)(2)(v) 73.71(c) POWER 20.405(a)(11)(b) 50.36(c)(1) 50.73(a)(2)(v) 50.73(a)(2)(v) 73.71(c) POWER 20.405(a)(11)(b) 50.73(a)(2)(v) 50.73(a)(2)(v) 50.73(a)(2)(v) 73.71(c) POWER 20.405(a)(11)(w) 50.73(a)(2)(v) 50.73(a)(2)(v) 73.71(c) 77.71(c) POWER 20.405(a)(11)(w) 50.73(a)(2)(v) 50.73(a)(2)(v) 73.71(c) 77.71(c) POWER 20.405(a)(11)(w) 50.73(a)(2)(v) 50.73(a)(2)(v) 76.77(c) 77.71(c) POWER 20.405(a)(1)(w) 50.73(a)(2)(v) 76.77(c) 77.71(c) 77.71(c) POWER 20.405(a)(1)(w) 50.73(a)(2)(w) 50.73(a)(2)(w) 77.71(c) 77.71(c) POWER 20.405(a)(1)(w) 50.73(a)(2)(w) 77.71(c) 77.71(c) 77.71(c) POWER 20.405(a)(1)(w) 50.73(a)(2)(w) 77.71(c) 77.71(c) 77.71(c)	02	03	96	-	96			00	03	(04	96	N/A			050	00		
POWER 20.405(a)(1)(0) 20.405(a)(1)(0) 20.405(a)(1)(0) 20.7(a)(2)(w) 20.7(a)(2)(w) LEVEL (10) 60% 20.405(a)(1)(0) 50.36(c)(1) 50.36(c)(2) 50.73(a)(2)(w) Abstract below 20.405(a)(1)(w) 50.73(a)(2)(w) 50.73(a)(2)(w) 50.73(a)(2)(w) Abstract below 20.405(a)(1)(w) 50.73(a)(2)(w) 50.73(a)(2)(w) 50.73(a)(2)(w) Abstract below NAME UCENSEE CONTACT FOR THIS LER (12) TELEPHONE NUMBER Abstract below 36.6(1) J. W. Pitesa COMPLETE ONE UNE FOR EACH COMPONENT PAILURE DESCRIBED IN THIS REPORT (13) AFEA CODE 70.4(2)(x) CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE COMPONENT MANUFACTURER REPORTABLE TO MPROS X WBD VALVOP F130 YES YES MONTH Day X WBD VALVOP F130 YES SUBMISSION DATE (15) ABSTRACT (LIMIT to 1400 spaces, i.e. approximately (16) Unit Status: Unit 1 MOde 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Sa	MC	DE (9)		1	20.4	402(b)	DPU	HSUANTTO	20 40	QUIRE	MEN	TS OF 1	OCFR	Check one of	more of the following	<u>q) (11)</u>	74/63		
LEVEL (10) 60% 20.405(a)(1)(i) 50.36(c)(2) 50.73(a)(2)(ii) 50.73(a)(2)(iii) 50.73(a)(2)(iii) Anstand balo 20.405(a)(1)(iii) 20.405(a)(1)(iii) 50.73(a)(2)(iii) 50.73(a)(2)(iii) 50.73(a)(2)(iii) Anstand balo NAME UICENSEE CONTACT FOR THIS LER (12) III CENSEE CONTACT FOR THIS LER (12) TELEPHONE NUMBER NAME III CENSEE CONTACT FOR THIS LER (12) TELEPHONE NUMBER AREA CODE (70.4) 875-4788 CAUSE SYSTEM COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) CAUSE SYSTEM COMPONENT MANUFACTURER X WBD VALVOP F130 YES X WBD VALVOP F130 YES MONTH AASTRACT (Limit to 1400 Spaces : le approximately filteen single-space ynawritten lines) (16) UINT IS TEADORT MONTH Unit Status: Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in the bearing temperature and had begun a	POWER	1			20.4	405(a)(1)(i)			50.30	5(c)(1)			1	50.73(a)(2)(v)	73	71(0)		
20.056(a)(1)(w) 50.73(a)(2)(w) 50.73(a)(2)(w)(A) Abstract below 20.056(a)(1)(w) 50.73(a)(2)(w) 50.73(a)(2)(w)(B) 50.73(a)(2)(w)(B) S0.73(a)(2)(w)(B) NAME UCENSEE CONTACT FOR THIS LEF (12) TELEPHONE NUMBER J. W. Pitesa (704) 875-4788 COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) APE-4788 CAUSE SYSTEM COMPONENT MANUFACTURER X WBD VALVOP F130 YES SUPPLEMENTAL REPORT EXPECTED (14) EXPECTED SUBMISSION DATE) X YES (I yes. complete EXPECTED SUBMISSION DATE) X No DATE (15) ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single-space typewritten limes)(16) Unit Status: Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 140 eggrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 eggrees in the searched the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 eggrees. Prior to the K	LEVEL	(10) 6	0%		20.4	405(a)(1)(ii)			50.3	6(c)(2)			-	50.73(a)(2)(vii)	01	HER (Spi	city in	
20.405(a)(1)(v) 50.73(a)(2)(vi) 50.73(a)(2)(vi) 50.73(a)(2)(vi) 3066) UICENSEE CONTACT FOR THIS LER (12) TELEPHONE NUMBER AREA CODE J. W. Pitesa COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) COMPONENT MANUFACTURER REPORTABLE COMPONENT MANUFACTURER System COMPONENT MANUFACTURER NO SUPPLEMENTAL REPORT EXPECTED (14) SUPPLEMENTAL REPORT EXPECTED SUBMISSION DATE) X NO SUPPLEMENTAL REPORT EXPECTED SUBMISSION DATE) X <td co<="" td=""><td></td><td></td><td></td><td></td><td>20.4</td><td>405(a)(1)(iii)</td><td></td><td>-</td><td>50.7</td><td>3(a)(2)(</td><td>(i)</td><td></td><td></td><td>50.73(a)(2</td><td>)(viii)(A)</td><td>Ab</td><td>stract belo</td><td>w and</td></td>	<td></td> <td></td> <td></td> <td></td> <td>20.4</td> <td>405(a)(1)(iii)</td> <td></td> <td>-</td> <td>50.7</td> <td>3(a)(2)(</td> <td>(i)</td> <td></td> <td></td> <td>50.73(a)(2</td> <td>)(viii)(A)</td> <td>Ab</td> <td>stract belo</td> <td>w and</td>					20.4	405(a)(1)(iii)		-	50.7	3(a)(2)((i)			50.73(a)(2)(viii)(A)	Ab	stract belo	w and
NAME Idensity of the product of the performance of routine Train as feature in the sector Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately this person as the Reactor Was tripped, the 1A Reactor Coolant Pump was tripped. A system temperature to service on February 5, 1996, at 0332. Event Cause: A cause of Equipment Failure due to an unknown stripped. A system					20.4	¥05(a)(1)(iv) ¥05(a)(1)(v)			50.7	3(a)(2)(3(a)(2))	(ii) (iii)		-	50.73(a)(2)(viii)(B)	in	Text, NRC	Form	
TELEPHONE NUMBER AREA CODE J. W. Pitesa COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE SUPPLEMENTAL REPORT EXPECTED (14) EXPECTED SUBMISSION DATE) X NO SUBMISSION ADATE (100 SUPPLEMENTAL REPORT EXPECTED SUBMISSION DATE) X NO SUBMISSION SUPPLEMENTAL REPORT EXPECTED SUBMISSION DATE) X <th colspan="2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>LICENSEE</td> <td>ECONT</td> <td>ACT F</td> <td>ORT</td> <td>HIS LER</td> <td>(12)</td> <td>1 50.73(8)(2</td> <td><u>((K)</u></td> <td>36</td> <td>6A)</td> <td></td>								LICENSEE	ECONT	ACT F	ORT	HIS LER	(12)	1 50.73(8)(2	<u>((K)</u>	36	6A)		
J. W. Pitesa (704) 875-4788 COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE CAUSE SYSTEM COMPONENT REPORTABLE TO NPROS X WBD VALVOP F130 YES Image: Component MANUFACTURER REPORTABLE TO NPROS X WBD VALVOP F130 YES Image: Component MANUFACTURER REPORTABLE TO NPROS X WBD VALVOP F130 YES Image: Component MANUFACTURER REPORTABLE TO NPROS X WBD VALVOP F130 YES Image: Component MANUFACTURER REPORTABLE TO NPROS X WBD VALVOP F130 YES Image: Component MANUFACTURER REPORTABLE TO NPROS X WBD VALVOP F130 YES Image: Component MANUFACTURER REPORTABLE TO NPROS X WBD VALVOP F130 YES NO SUBMISSION DATE (15) Image: Co	NAME														TELEP	HONE NI.	MBER		
CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NPROS CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NPROS X WBD VALVOP F130 YES CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NPROS SUPPLEMENTAL REPORT EXPECTED (14) YES (1 yes. complete EXPECTED SUBMISSION DATE) X NO SUBMISSION DATE (15) MONTH DAY ABSTRACT (Limit to 1400 spaces, i.e. approximately filteen single-space typewritten lines)(16) Unit Status: Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 percent Reactor Power the administrative trip criteria for the pump was reached the Reactor was manually tripped as directed by procedure requirements at 1419:1 As soon as the Reactor was tripped, the 1A Reactor Coolant Pump was tripped. A systems responded as required after the trip. Unit 1 was returned to service on February 5, 1996, at 0332.	J. W.	Pitesa				COMPLETE ONE	LINE	FOR FACH C	OMPON		FAILL	IRE DES	CRIRET		(704)	875-4	788		
CAUSE STREM COMPONENT MANUFACTURER REPORTABLE TO NPROS X WBD VALVOP F130 YES Image: Supplement and the provided	CAUSE	ever	EN	004	WOMEN'T	LILLUF LOT INCO				10.111	MILO	L DCO	CHIDEL	IN THIS REP	T	1		10000	
X WBD VALVOP F130 YES SUPPLEMENTAL REPORT EXPECTED (14) SUPPLEMENTAL REPORT EXPECTED (14) EXPECTED MONTH DAY YES (1 yes. complete EXPECTED SUBMISSION DATE) X NO DATE (15) DATE (15) ABSTRACT (Limit to 1400 spaces, i.e. approximately lifteen single-space typewritten lines)(16) Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 percent Reactor Power the administrative trip criteria for the pump was reached the Reactor was manually tripped as directed by procedure requirements at 1419:1 As soon as the Reactor was tripped, the 1A Reactor Coolant Pump was tripped. A systems responded as required after the trip. Unit 1 was returned to service on February 5, 1996, at 0332. Event Cause: A cause of Equipment Failure due to an unbrown cause has here.	CAUSE	0.101	C.WI	COM	PONENT	MANUFACTURER		TO NPRDS	S. Co	CAU	ISE	SYST	EM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		- Section	
SUPPLEMENTAL REPORT EXPECTED (14) EXPECTED SUBMISSION DATE) X NO NO ABSTRACT (Limit to 1400 spaces, i.e. approximately liteen single-space typewritten lines) (16) Unit Status: Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 percent Reactor Power the administrative trip criteria for the pump was reached the Reactor was manually tripped as directed by procedure requirements at 1419:1 As soon as the Reactor was tripped, the 1A Reactor Coolant Pump was tripped. A systems responded as required after the trip. Unit 1 was returned to service on February 5, 1996, at 0332. Event Cause: A cause of Equipment Failure due to an unknown cause has been been been been been been been bee	x	WB	D	VAL	VOP	F130	Y	ES	12.43										
SUPPLEMENTAL REPORT EXPECTED (14) EXPECTED SUBMISSION DATE) X NO YES (1 yes, complete EXPECTED SUBMISSION DATE) X NO ABSTRACT (Limit to 1400 spaces, i.e. approximately litteen single-space typewritten lines)(16) Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when to 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 percent Reactor Power the administrative trip criteria for the pump was reached the Reactor was manually tripped as directed by procedure requirements at 1419:1 As soon as the Reactor was tripped, the 1A Reactor Coolant Pump was tripped. A systems responded as required after the trip. Unit 1 was returned to service on February 5, 1996, at 0332. Event Cause: A cause of Equipment Failure due to an unknown cause has here.				and and a first star	and with sealast re					-	-		-		-			1	
SUPPLEMENTAL REPORT EXPECTED (14) EXPECTED SUBMISSION DATE) X NO YES (1 yes, complete EXPECTED SUBMISSION DATE) X NO ABSTRACT (Limit to 1400 spaces, i.e. approximately lifteen single-space typewritten lines) (16) Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 percent Reactor Power the administrative trip criteria for the pump was reached the Reactor was manually tripped as directed by procedure requirements at 1419:1 As soon as the Reactor was tripped, the 1A Reactor Coolant Pump was tripped. A systems responded as required after the trip. Unit 1 was returned to service on February 5, 1996, at 0332.		-				k	L		100520			1						Circles and	
YES (I yes, complete EXPECTED SUBMISSION DATE)XNOSUBMISSION DATE (15)ABSTRACT (Limit to 1400 spaces, i.e. approximately litteen single-space typewritten lines) (16)Unit Status:Unit 1 - Mode 1 (Power Operations) at 60 percent power.Event Description:On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees.degrees.Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 percent Reactor Power the administrative trip criteria for the pump was reached the Reactor was manually tripped as directed by procedure requirements at 1419:1As soon as the Reactor was tripped, the 1A Reactor Coolant Pump was tripped. A systems responded as required after the trip. Unit 1 was returned to service on February 5, 1996, at 0332.Event Cause:A cause of Equipment Failure due to an unknown cause has here		SUP	PLEN	ENTA	L REPOR	RT EXPECTED (14)									EXPECTED	MONTH	DAY	YEAP	
ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single-space typewritten lines) (16) Unit Status: Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 percent Reactor Power the administrative trip criteria for the pump was reached the Reactor was manually tripped as directed by procedure requirements at 1419:1 As soon as the Reactor was tripped, the 1A Reactor Coolant Pump was tripped. A systems responded as required after the trip. Unit 1 was returned to service on February 5, 1996, at 0332.		YES (f yes	s, com	plete l	EXPECTE	ED SUBMISSION DA	TE)	X	NO)					DATE (15)	1.20			
Unit Status: Unit 1 - Mode 1 (Power Operations) at 60 percent power. Event Description: On February 3, 1996, during the performance of routine Train Safety Injection Slave Relay Testing, a manual Reactor Trip was initiated when t 1A Reactor Coolant Pump Upper Thrust Bearing reached the administrative limit of degrees. Prior to the trip, Operations personnel had noted a steady increase in bearing temperature and had begun a rapid power reduction. At approximately 60 percent Reactor Power the administrative trip criteria for the pump was reached the Reactor was manually tripped as directed by procedure requirements at 1419:1 As soon as the Reactor was tripped, the 1A Reactor Coolant Pump was tripped. A systems responded as required after the trip. Unit 1 was returned to service on February 5, 1996, at 0332. Event Cause: A cause of Equipment Failure due to an unknown cause has here	ABSTR	ACT (Lim	nit to 1.	400 sp	aces, i.e.	approximately fiftee	n sin	gle-space type	written li	ines) (1	6)				0416 (15)	1	_		
assigned. The increase in 1A Reactor Coolant Dump Upper Mater Desvice ter	Even Safe 1A R degr bear perc the As s syst Febr Even	t Des ty In eactor ees. ing t ent I React oon a ems n uary t Cau	scr nje or P temj Read tor as resj 5,	ipt cti Coo per cto wa the pon 19	ion: on S lant r to ature r Pou s man Rea ded a 96, a A cau	On Febru lave Relay Pump Uppe the trip, e and had wer the ad nually tri actor was as require at 0332. use of Equ	ar T O be mi pp tr d	y 3, 19 esting, Thrust peratio gun a r nistrat ed as d ipped, after t ment Fa	96, a m Bear ns p apic ive lirec the he t ilur	dur manu bers l po tri tri tri la rip	in ial ion we p Re i.b	g the Reac each nel l r rec crite y pro actor Unit	e pe ctor ed t had duct eria oced r Co t 1 an u	rforman Trip v he admi noted a ion. 1 for th ure rec olant 1 was ret	te power: nce of rou vas initia inistrativ a steady i At approxi ne pump wa puirements Pump was t curned to cause has	tine ted w e lim ncrea matel s rea at 1 rippe servi been	Train hen t it of se in y 60 ched 419:1 d. <i>P</i> ce or	1 1A the 195 the and 5.	

Corrective Action: The associated systems and components were evaluated/tested and determined to be operable.

NRC FORM 366

4

NRC FORM 366A 89)	APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98							
LIČENSEE EV TEXT CO	ENT REPORT (LI	ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MAI INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LES LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS A BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDE ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT I (T-6 F33). U.S. NUCLEAR REGULATORY COMMISSION, WASHINGT 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (31) OFFICE OF MANAGEMENT AND BUDGET WASHINGTON COMPONENT.						
FACILITY NAME (1)		DOCKET NUMBER (2)		PAGE (3)				
McGuire Nuclear Station, Unit 1			YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		05000 369	96	001	00	2 OF 7		

EVALUATION:

Description of Event

On February 3, 1996, Unit 1 was in Mode 1 (Power Operation) at 100 percent power. Train A of Unit 1 KC system was being operated in a depressurized alignment with valves [EIIS:V] 1KC-0001A, Engineered Safety Features (ESF) Auxiliary Building (AB)[EIIS:NM] Non-Essential Return Automatic Isolation, and 1KC-0050A, ESF AB Non-Essential Header Automatic Isolation closed due to equipment problems associated with valve 1KC-0001A. Also, the Unit was operating utilizing one Component Cooling (KC) system [EIIS:CC] Pump [EIIS:P] instead of two for a trial period to confirm the feasibility of adopting this as a regular operating alignment for both units. Therefore, only the 1B1 KC Pump was in service at that time.

- Routine Safety Injection Slave Relay testing was in progress on Train 1A using procedure PT/1/A/4200/28A, Train A Slave Relay Test.
- Upon completion of the relay actuation and verification of valve movement, Operations (OPS) Test Group personnel and an OPS Reactor Operator (RO) began the performance of step 12.24.17 of the procedure, which verifies return of the valves associated with the test to the initial position.
- When the OPS Test Group Person began to read the position for valve 1KC-0050A, the OPS RO inadvertently depressed the open push-button associated with the valve prior to completion of the communication stating that the valve should be in the closed position.
- Due to the system alignment at that time (valve 1KC-0056A, Residual Heat Removal (ND) system [EIIS:BP] Heat Exchanger (HX) [EIIS:HX] 1A Automatic Supply, open), a flow and pressure transient occurred in the KC system until valve 1KC-0050A could be returned to the closed position.
- · OPS response included starting the 1B2 KC Pump.
- Once valve 1KC-0050A was closed again, the transient to the KC system was over. No further Operator action was necessary, and the 1B2 KC Pump was secured.

NRC FORM 36 89)	GA U.S. NUCLEAR RE LICENSEE EVENT REPORT (LI TEXT CONTINUATION	GULATORY COMMISSION(6-	APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/96 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH INFORMATION COLLECTION REQUEST: 50.0 HRS. REPOR LEARNED ARE INCORPORATED INTO THE LICENSING PR BACK TO INDUSTRY. FORWARD COMMENTS REGARDINI ESTIMATE TO THE INFORMATION AND RECORDS MANAG (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, W/ 20555-0001, AND TO THE PAPERWORK REDUCTION PRO-						H THIS MANDATOR ORTED LESSONS PROCESS AND FEE ING BURDEN AGEMENT BRANCH WASHINGTON, DC IOJECT (3150-0104		
FACILITY NA	ME (1)	DOCKET NUMBER (2)	OFFICE O	IF MAN	MANAGEMENT AND BUDGET, WASHINGTON, DC LER NUMBER (6)				20503. PAGE (3)		
McGuiro	Nuclear Station Unit 1		YEAR		SEQUENTIAL NUMBER		REVISION NUMBER				
McGuire	Nociear Station, Onit 1	05000 369	96		001		00	3	OF 7		
•	Approximately eight minutes Personnel received an alarr system [EIIS:AB] Pump 1A Up computer indication at that increasing.	s later, at 1 n [EIIS:ALM] oper Thrust H t time was no	1354: for 1 Bearin oted a	13, Rea ng at	OPS C actor C high t 141.2	ont oo] emp deg	trol Roo lant (NC perature grees an	m) d	The		
٠	The 1B2 KC Pump was started	d in response	e to f	the	alarm	÷ .					
•	At 1357:44, the alarm for h received, requiring increas	nigh vibratio sed monitorin	on on ng.	th	ne 1A N	CI	oump was				
•	At 1406, in response to the procedure AP/1/A/5500/08, M AP/1/A/5500/04, Rapid Downg Reactor [EIIS:RCT] power be Reactor Power) in order to	ese indication Malfunction (power, in an elow the P-8 secure the 1	ONS, (OF NC atter trip 1A NC	OPS Pu mpt se Pu	perso mp, an to ra tpoint mp.	nne d t pid (4	el enter chen lly redu 18 perce	ed ce nt			
•	While this was underway fur increase the KC system flow	rther actions w to the 1A M	s were NC Pur	et mp,	aken i but w	n a ere	an attem e unsucc	pt es	to sful.		
•	The 1A NC Pump Upper Thrust and, at 1419:15, reached 19 specified by procedure. At the Reactor and then manual Turbine Generator [EIIS:TG]	t Bearing ter 95 degrees wh t that time (11y tripped t] Trip follow	mperat hich : DPS pe the 1) wed th	tur is ers A N he	e cont the tr onnel IC Pump Reacto	inu ip mar r T	ed to i criteri nually t An auto Trip.	nc a rij ma	rease as pped tic		
•	OPS personnel entered proce Safety Injection, and then Reactor Trip Response.	edure EP/1/A/ entered proc	/5000, cedure	/EO e E	, Reac P/1/A/	tor 500	Trip 0)0/ES-0.	r 1,			
·	The 4 hour notification to with procedure RP/0/A/5700/ Requirements.	the NRC was /10, NRC Imme	made ediate	at e N	1507 Notific	in ati	accorda .on	nc	e		
•	OPS, Maintenance, and Engin determine the cause of the 0488, NC Pump 1A Upper Bear in the closed position which bearings.	neering perso event. It w ring Outlet H ch had stoppe	onnel was d: Flow, ed KC	be isc ha sy	gan an overed d move stem f	in th d t low	nvestiga nat valv to and r v to the	ti) e ema uj	on to 1KC- ained pper		

• After initial investigation and troubleshooting of the components associated with the valve were completed, it was determined that a significant flow and pressure perturbation (not associated with any

NRC FORM 366A 89)	U.S. NUCLEAR REGULATORY COMMISSION(6-	APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98							
LICENSEE EVENT TEXT CONT	ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDA INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSON LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRAI (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0								
FACILITY NAME (1)	DOCKET NUMBER (2)		PAGE (3)						
		YEAR	SEQUENTIAL NUMBER	REVISION					
McGuire Nuclear Station, Unit 1	05000 369	96	001	00	4 OF 7				

water hammer)had been created during the transient causing the control valves for KC system flow associated with all four NC pumps to cycle in an extreme manner. However, after the transient to the KC system was over, valve 1KC-0488 remained in the closed position.

- No exact cause for the failure could be identified. All associated equipment was subsequently tested/verified to be operable.
- The Unit was returned to Mode 1, on February 5, 1996, at 0322.

Conclusion

This event did not result in any uncontrolled releases of radioactive material, personnel injuries, radiation overexposures. The event is Nuclear Plant Reliability Data System (NPRDS) reportable due to the possible failure of the valve operator for valve 1KC-0488.

- The failure which caused valve 1KC-0488 to remain in the closed position has been assigned a cause of Equipment Failure due to an Unknown, possible equipment failure in the associated control loop for the valve. The increase in 1A NC Pump Upper Bearing temperature was caused by the loss of KC system flow due to the valve remaining closed. Extensive investigation efforts have been unable to determine the exact mode of failure for the equipment which caused the valve to remain closed. Analysis of the KC system transient revealed that valve 1KC-0488 was required to quickly reposition three times. It failed closed after the third repositioning.
- Further analysis of the failure of the high flow signal to clear has revealed that a possible cause of the failure was blockage of the low pressure side of the flow transmitter manifold block valve by a small amount of debris stirred up from the system transient. The manifold block valves are maintained in a throttled position to limit the effects of pressure oscillations on the flow signal to the control instrumentation. This throttled condition makes the valve seat clearance very small, such that it could be susceptible to blockage by a very small amount of debris.
- The high and low pressure impulse lines of all four upper bearing cooling water flow loops were blown down in order to remove any potential debris and to help prevent future blockage. No evidence of any debris were found during this blowdown.

LICENSEE EVENT REPOI TEXT CONTINUATIO	ICLEAR REGULATORY COMMISSION(6- RT (LER) ON	(6- EXPIRES 04/30/98 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MAN INFORMATION COLLECTION REQUEST 50.0 HRS. REPORTED LES LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AI BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEI ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT B GT-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTO 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (315)					
FACILITY NAME (1)	DOCKET NUMBER (2)	YEAD	LER NUMBER	(6)		PAGE (3)	
		YEAR	NUMBER	NUMBER	5 0		
McGuire Nuclear Station, Unit 1	05000 369	96	001	00		OF 7	
 Three other potential temporary backchecking against the valve seat controller setpoint res blockage of the instrum [EIIS:FT] nozzle [EIIS 	failure modes we of the low press , temporary block striction orifice ment air associa	re iden sure ma kage of e [EII] ted wit	ntified. anifold b f the pne S:OR], and th the flo	These we lock valu umatic d tempora ow transm	ere Ve ary		
probability.	:NZL]. Each of	these (was elimin	nated due	nitt e to	er low	
A review of the Operating Investigation Process (PI no similar reportable eve recurring.	:NZL]. Each of Experience Prog (P) data bases fo ents. This event	ram (O or the is no	was elimin DEP) and P past 24 m ot conside	nated due Problem Nonths re Pred to b	nitt e to vea e	led	

Immediate:

- 1. OPS personnel entered procedure AP/1/A/5500/08, Malfunction OF NC Pump, and then AP/1/A/5500/04, Rapid Downpower.
- 2. OPS personnel attempted to increase the KC system flow to the 1A NC Pump.
- 3. OPS personnel initiated a Manual Reactor Trip.
- 4. OPS personnel entered procedure EP/2/A/5500/E0, Reactor Trip Or Safety Injection, and then entered procedure EP/1/A/5000/ES-0.1, Reactor Trip Response.

Subsequent:

- 1. OPS, Maintenance, and Engineering personnel began an investigation to determine the cause of the event.
- 2. The KC system, 1B1 KC Pump, 1A NC Pump, valve 1KC-0488A, and all associated equipment were verified to be operable.
- 3. The high and low pressure impulse lines of all four upper bearing cooling water flow loops were blown down in order to insure clear instrumentation tubing.

Planned:

1. The details of this event will be covered with appropriate Operations personnel.

NRC FORM 366A 89) LICENSEE EV TEXT CO	U.S. NUCLEAR	REGULATORY COMMISSION(6-	APPROVED BY UMB NO. 3150-0104 EXPIRES 04/30/98 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MAND INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BR (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150						
FACILITY NAME (1)		DOCKET NUMBER (2)	VEAD		R (6)	PAGE (3)			
			TEAN	NUMBER	NUMBER				
McGuire Nuclear Station, Unit 1	05000 369	96	001	00	6 OF 1				
Based on this an At no time were affected by this	alysis, this the health a event.	event is not and safety of	consi the pu	idered to ublic or	be signi plant per	ficant. sonnel			
 The Safety Re- cooling to the HXs, during the Coolant Accident isolating flow Essential Head flow from the Header on a H 	ated portion redundant t e Containmen nt (LOCA). from the no er on a Safe normally in- gh-High Cont	n of the KC sy trains of the nt Sump Recirc This Design E ormally in-ser ety Injection -service React tainment Press	vstem ND sy culati Basis cvice Signa cor Bu sure S	is desig stem, vi on phase function Auxiliar 1, as we ilding N ignal.	ned to pro a the ND s of a Loss is achiev y Building ll as iso on-Essent	ovide system s Of ved by g Non- lating lal			
 Isolation of 	hese header								

- The transient associated with this event had no effect on the ability of the KC system to provide the above Design Basis function.
- Post transient monitoring of the 1B1 KC pump revealed no increase in pump vibration. Additional Engineering evaluation has concluded that long term reliability of the 1B1 pump was not affected by this transient.
- The flow path which produced the transient would have been isolated had a Safety Injection Signal been initiated during the transient.
- Closure of valves by a Safety Injection Signal would have isolated the discharge headers of A and B train, eliminating the cross train flow, and restoring NPSH to the B train pumps. The ability of these valves to close was unaffected by the transient. The required flow would therefore have been available to provide cooling of the ND system HXs.

NRC FORM 366A 89)	U.S. NUCLEAR REGULATORY COMMISSION(6-	APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98						
LICENSEE EVENT TEXT CONTI	ESTIMATEL INFORMAT LEARNED BACK TO II ESTIMATE (T-6 F33), U 20555-0001 OFFICE OF	ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDA INFORMATION COLLECTION REQUEST. 50.0 HRS. REPORTED LESSO LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRIA (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150- 00000000000000000000000000000000000						
FACILITY NAME (1)	DOCKET NUMBER (2)		PAGE (3)					
		YEAR	SEQUENTIAL NUMBER	REVISION				
McGuire Nuclear Station, Unit 1	05000 369	96	001	00	7 OF 7			

- The Main Feedwater (CF) system [EIIS:SJ] was available after the trip and continued to provide feedwater flow.
- The resulting secondary side transient as a result of the trip caused the B Steam Generator (SG) [EIIS:SG] level to reach the Low Low Reactor Trip Logic setpoint and the Auxiliary Feedwater (CA) system [EIIS:BA] Motor [EIIS:MO] Driven Pumps started as designed and operated properly to assist in returning SG levels to normal.
- The Main Steam Line Code Safety Valves [EIIS:RV] and SG Power Operated Relief Valves did not operate nor were they challenged. All Steam Dump To Condenser Valves operated properly. No Atmospheric Dump Valves opened. No Pressurizer [EIIS:PZR] Code Safety or Pressurizer Power Operated Relief Valves opened, nor were the setpoints for these valves reached.
- The Primary and Secondary plant parameters were stabilized at no load conditions within 30 minutes following the trip and all plant equipment responded as expected.