

Crystal River Unit 3 Docket No. 50-302

> May 28, 1992 3F0592-18

U. S. Nuclear Regulatory Commission Attention: Document Control Des. Washington, D. C. 20555

Subject: Licensee Event Report (LER) 92-04

Dear Sir:

Enclosed is Licensee Event Report (LER) 92-04 which is submitted in accordance with 10 CFR 50.73.

Sincerely,

Boldt

G. L. Boldt Vice President Nuclear Production

EEF:mag

Enclosure

xc: Regional Administrator, Region II Project Manager, NRR Senior Resident Inspector

010002

9206020022 920528 PDR ADOCK 05000302 S PDR 4632 1

FIM 366				APPROVED OMB NO. 0150-0104																		
÷.								EXPIRES 4/30/92														
LICENSEE EVENT REPORT (LER)										ED BURDEN PER RESPONSE TO COMPLY WITH THIS (TION COLLECTION REQUEST: 50.0 HOURS, FORWARD IT'S REGARDING BURDEN ESTIMATE TO THE RECORDS (ORTS MANAGEMENT BRANCH (P550), U.S. NUCLEAR TORY COMMISSION, WASHINGTON, DC 20565, AND TO ERWORK, REDUCTION PROJECT (3156-0104), OFFICE AGEMENT AND BUDGET, WASHINGTON DC 20503.												
Y NAME (	1)			one the contraction			and an order of the second			and a second second		DOC	ET NU	ABER	(2)			PAGE (3)				
	C	RYS	STAL F	NVER U	TIN	3 (CR-3)						0	5 0	0	0	3	0 2	10	= 0			
Em	ergen	cy F	eedwa	ter Block	Val	ves Fail To	Close	Due To	Degrade	d Valve C	ondition Ar	nd In	adequ	ate I	Mot	or O	perator	Сара	blitie			
NT DATE (	(5)	-	-	LEF: NUMBE	IR (6)	)	FREF	OFIT DAT	E (7)			OTHER FACILITIES INVOLVED (8)										
		-		SEQUENT	TAL	REVISION				FAC	BUTY NAMES				00	CKET	NUMBER	(8)				
DAY	YEA	a   1	YEAR	NUMBE	R	NUMBER	MONTH	DAY	YEAR	N/A					0	5	0 0	0	11			
2 8	0 3	9	2	000	4		0 5	2 8	9 2	N/A					0	5	0 0	0	11			
RATINO	L	TH	USI FREFEOR	RT IS SURMI	TTED	PURSLANT TO	O THE RE	CURRENT	ENTS OF 10	CEB & ICH	FOR ONE OR MOI	18 - 18 T	HE FOUL		-	00	~ 1.*.		adar ada			
ODE (9) 300	1	1	20.40	2(b)			20.405/			50	73/4V7Viv3	_			-	70	21761					
ÆÐ		+	00.40	AraW1WP			40.546	wa -		×0	73/4/200					79	7.1(e) 7.1(e)					
LEVEL			ED. WHICH CO				50 79VaV2VV0						HER Jour		ine at							
	L		20 40	REAK WILL			50 7340	N2V0			THE VOULAN					be	kow and in 7	ext, NRC	Form			
			20.40	Real ( Min)		×	50 2344	week's			73/aV29/00/01											
			20.40	Scale ( Mu)			80.756	Novana -			00.7 MaAcAvinAb)											
			1 69.40	of et al. ( Mark			LICENSE	ECONTA	ACT FOR TH	IS LER (12)	CORRECT OF											
												[			TELI	<b>EPHO</b>	NE NUME	ER				
				W. A. S	hep	henson, Nu	iclear S	Safety S	Superviso	or .			AREA	SODE								
	-	i ini selasetian					-					1	9 0	4	7	9	5 -	6 4	8			
	-			COM	PLET	TE ONE LINE FO	OFI EACH	COMPON	ENT FAILU	RE IN THIS RE	PORT (13)					-						
SYSTEM	COM	PON	LNT	NT MANUFAC- TURER		TO NPRDS			CAU	SE SYSTEM	COMPONE	N)	MAI	NUFAC-		TO NPRDS						
BA	1 5	V	1	/ 0 8	5	Y			×	BA	1 [8	4	L   2	0	0		Y					
BA	115	S   V	1	6   8	4	Y					1-1-1		1									
				SUP	PLEM	IENTAL PEPOF	IT EXPEC	TED (14)					EXF	ECTE	D		MONTH	DAY	YE.			
S ill ye	a comple	w EXP	ECTED BU	BAUSSION DAT	E)		X	1 NO					SUE	MISS	NOR							
	Y NAME ( ) Em NT DATE ( DAY 2 8 RATING XOE (9) AER 2 8 RATING XOE (9) AER 2 0 8 RATING XOE (9) 8 RATING 2 0 8 RATING 2 0 8 RATING 1 0 8 RATING 2 0 8 RATING 2 0 8 RATING 2 0 8 RATING 2 0 8 8 RATING 2 0 8 RATING 2 0 8 RATINA 2 8 RATING 2 8 RATIN 2 8 RATIN 8 RATINA 8 RATIN 8 RATIN 8 RATINA 8 RATIN 8 RATIN 8 RATINA 8 RATIN 8 8 RATIN 8 RATIN	Image: Several conditions     Image: Condition conditions       Y MAME (1)     C       Y MAME (1)     C       Image: Condition condition condition     C       Image: Condition condition condition     C       Image: Condition condition condition     C       Image: Condition condition     C       Image: Condition condition     C       Image: Condition condition     C       System     Condition       Image: Condition condition     C       Image: Condition     C	LICE Y NAME (1) CRYS Emergency F DAY YEAR 2 8 9 2 9 RATING 2 8 9 2 9 RATING 1 1 ACR 1 0 6 5 SYSTEM COMPONI B A I S V B A I S V	LICENSEE Y NAME (1) CRYSTAL F CRYSTAL F CRYSTAL F CRYSTAL F CRYSTAL F CRYSTAL F DAY YEAR YEAR 2 8 9 2 9 2	Image   LICENSEE EVENT     Y MAME (1)   CRYSTAL RIVER UI     CRYSTAL RIVER UI   Emergency Feedwater Block     IT DATE (5)   LER NUMBE     DAY   YEAR   YEAR     DAY   YEAR   YEAR     DAY   YEAR   SECUENT     NUMBE   SECUENT   NUMBE     2   8   9   2   0   0     RATING   1   THIS REPORT IS SUBMI   20.402(b)     AER   20.405(a)(1)(?)   20.405(a)(1)(?)   20.405(a)(1)(?)     EL   0   6   5   20.405(a)(1)(?)     20.405(a)(1)(?)   20.405(a)(1)(?)   20.405(a)(1)(?)   20.405(a)(1)(?)     20.405(a)(1)(?)   20.405(a)(1)(?)   20.405(a)(1)(?)   20.405(a)(1)(?)     WV. A. S   COMPONENT   MANUFAC     WV. A. S   COMPONENT   MANUFAC     B   A   I   S   V   I   8     B   A   I   S   V   C   6   8	LICENSEE EVENT RI     LICENSEE EVENT RI     Y MAME (1)     CRYSTAL RIVER UNIT     Emergency Feedwater Block Val     NT DATE (6)     LER NUMBER (8     DAY   YEAR   SEQUENTIAL     NUMBER (8     DAY   YEAR   SEQUENTIAL     NUMBER (8     DAY   YEAR   YEAR   NUMBER (8     DAY   YEAR   YEAR   NUMBER (8     DAY   YEAR   YEAR     DAY   YEAR   YEAR     DAY   YEAR     PAR   YEAR     DAY   YEAR     PAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR <td< td=""><td>Image   U.B. NOX     LICENSEE EVENT REPORT (L     Y NAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     Image: Crystal River Block Valves Fail To     Image: Crystal River Block Valves Fail To     NT DATE (5)     LER NUMBER (8)     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER     NUMBER   NUMBER     ATING   1     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER     RATING   1     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER     NUMBER   NUMBER     RATING   1     DAY   YEAR     20.405(a)(1)(1)   20.405(a)(1)(1)     20.405(a)(1)(1)   X     20.405(a)(1)(1)</td><td>Image   U.S. NUCLEARTIES     LICENSEE EVENT REPORT (LER)     Y HAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     P     Emergency Feedwater Block Valves Fail To Close I     NT DATE (6)     LER NUMBER (8)     DAY     YEAR     VEAR     V</td><td>Image   U.S. NUCLEAT REPORT (LER)     Image   CRYSTAL RIVER UNIT 3 (CR-3)     Image   CRYSTAL RIVER UNIT 3 (CR-3)     Emergency Feedwater Block Valves Fail To Close Due To     Image   REPORT (AL     DAY   YEAR     VEAR   YEAR     Image   NUMBER     NUMBER   NUMBER     MONTH   DAY     YEAR   YEAR     Image   NUMBER     NUMBER   NUMBER     MONTH   DAY     YEAR   YEAR     Image   PROMET IS BUBMITTED PURSUANT TO THE RECORD FROM NOT H     DAY   YEAR     YEAR   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(2)     20.405(a)(1)(2)   20.405(a)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(2) <td>In 395   U.S. NUCLEAR RECOUNT OF COMMISS     LICENSEE EVENT REPORT (LER)     YNAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     P     Emergency Feedwater Block Valves Fail To Close Due To Degrade     NT DATE (9)     LEF NUMBER (0)     PREVISION     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER MONTH     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER MONTH     DAY   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR</td><td>In 360   U.S. NUCLEAR RECORT (LER)     ILICENSEE EVENT REPORT (LER)     Image: Construction of the second state of the sec</td><td>Image   U.S. NACLEAR REDUCT (LER)     LICENSEE EVENT REPORT (LER)     YNAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     Image: Crystal River Unit 3 (CR-3)     Emergency Feedwater Block Valves Fail To Close Due To Degraded Valve Condition Arrows (Crystal River Unit Reverse)     NT DATE (6)     Ler NUMBER (0)     Percent Date (7)     PARTNO     DAY   YEAR     Note (1)     DAY   YEAR     Partno   NUMBER     DAY   YEAR     Note (1)   Revision     NOT the control of the control of the feature (1)     PARTNO   NUMBER     NE (9)   1     1   Percent Date (2)     2   8   9   2     2   9   2   0   0   4   0   0   5   2   8   9   2   N/A     RATING   1   HINBER   NUMBER   MOMBER   NOA   N/A     Sec(9)   1   20.405(a)(10)   20.405(a)(20)   50.73(a)(20)   50.73(a)(20)     20.405(a)(10)   20.405(a)(10)   50.</td><td>M 38   USE NUCLEAR REPORT (LER)   APPE     LICENSEE EVENT REPORT (LER)   ESTIMATED BURGH     Y NAME (1)   CRYSTAL RIVER UNIT 3 (CR-3)   0     O   CRYSTAL RIVER UNIT 3 (CR-3)   0     O   Effergency Feedwater Block Valves Fail To Close Due To Degraded Valve Condition And In The PARAMENTE CONTROL OF MARAGEMENT   0     NT DATE (6)   LER NUMBER (7)   RECORT DATE (7)   OTHIN     DAY   YEAR   VEAR   REQUENTIAL   REVISION     NUMBER (7)   0   4   0   0   5   2   8   2   8   2   9   2   0   4   0   0   5   2   8   2   8   2   8   2   8   2   8   2   8   2   8   2   8   2   9   2   0   0   5   2   8   2   8   2   8   2   8   2   9   7   0   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1</td><td>M 388   0.5. MARLIAN RECORT OF COMMISSION   APPROVED C     LICENSEE EVENT REPORT (LER)   EXEMPTED BUILDEN PERIMETED PERIMETED PERIMETED DURBUNGET DATE (7)   DOCKET NUM     VEAR   VEAR   NUMBER   NUMBER   NUM   NUM     DAY   VEAR   PEOUENT(AL REVISION   REVISION   FACILITY NAMES     DAY   VEAR   NUMBER   NUMBER   NUM   NUM     DAY   VEAR   NUMBER   NUMMER   NUM   NUM     2   8   9   2   NUM   NUM   NUM     2   8   9   2   NUM   NUM   NUM   NUM     2   8   9   2   NUM   NUM   NUM   NUM   NUM     2   8</td><td>M 388   0.5. MAXELAN RECORT (LER)   APPROVED ONE   EXPRESE     LICENSEE EVENT REPORT (LER)   EXPRESE   EXPRESE   EXPRESE     VAMAE (1)   CRYSTAL   RIVER UNIT 3 (CR-3)   0   5   0     0   5   0   0   5   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0</td><td>M 362   U.S. NUCLEAR RECORDER CONTROL AND RECORDERING AND RECORDERS AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERS AND REPORT RESIDENCE.     V PARE (1)   CERN NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     DAY   YEAR   YEAR   NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REVENDING   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REVENDING   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   1   NUMBER (0)   REPORT TO THE RECORDERMENTS OF IS OTH \$   FACILITY NAMES   DO   DO   DO   DO   DO   DO   DO   DO   DO   DO</td></td></td<> <td>M 360   U.S. RUCLLAFFECIAL CHY COMMISSION   APPROVED ONE RO 3156-0     LICENSEE EVENT REPORT (LER)   ESTIMATE BURGEN FEE READONE TO CRYSTAL RIVER UNIT 3 (CR-3)   DOCKET NUMBER (0)     ************************************</td> <td>Mail Set     D.B. INCLEMPIE GLANOW COMMISSION     APPROVE DOE NO. 3150-014       LICENSEE EVENT REPORT (LER)     EDTIMITED BUILTON REQUEST to COMMYNEE     EDTIMITED BUILTON REQUEST to COMMYNEE       VMAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     DOCKET NUMBER (0)     DOCKET NUMBER (0)       0     6     0     0     5     0       0     6     0     0     5     0     0       0     6     0     0     5     0     0     5     0       0     6     0     0     5     0     5     0     0     5     0     2       0     Emergency Feedwater Block Valves Fail To Close Due To Degraded Valve Condition And Inadequate Motor Operator     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0</td> <td>Bit 300     D.S. MACLENT REMARKING COMMERCIAL     APPROVED SUBJECT     APPROVED</td>	Image   U.B. NOX     LICENSEE EVENT REPORT (L     Y NAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     Image: Crystal River Block Valves Fail To     Image: Crystal River Block Valves Fail To     NT DATE (5)     LER NUMBER (8)     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER     NUMBER   NUMBER     ATING   1     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER     RATING   1     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER     NUMBER   NUMBER     RATING   1     DAY   YEAR     20.405(a)(1)(1)   20.405(a)(1)(1)     20.405(a)(1)(1)   X     20.405(a)(1)(1)	Image   U.S. NUCLEARTIES     LICENSEE EVENT REPORT (LER)     Y HAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     P     Emergency Feedwater Block Valves Fail To Close I     NT DATE (6)     LER NUMBER (8)     DAY     YEAR     VEAR     V	Image   U.S. NUCLEAT REPORT (LER)     Image   CRYSTAL RIVER UNIT 3 (CR-3)     Image   CRYSTAL RIVER UNIT 3 (CR-3)     Emergency Feedwater Block Valves Fail To Close Due To     Image   REPORT (AL     DAY   YEAR     VEAR   YEAR     Image   NUMBER     NUMBER   NUMBER     MONTH   DAY     YEAR   YEAR     Image   NUMBER     NUMBER   NUMBER     MONTH   DAY     YEAR   YEAR     Image   PROMET IS BUBMITTED PURSUANT TO THE RECORD FROM NOT H     DAY   YEAR     YEAR   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(2)     20.405(a)(1)(2)   20.405(a)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(2)     20.405(a)(1)(2)   20.405(a)(1)(2)     20.405(a)(1)(2)   20.405(a)(2) <td>In 395   U.S. NUCLEAR RECOUNT OF COMMISS     LICENSEE EVENT REPORT (LER)     YNAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     P     Emergency Feedwater Block Valves Fail To Close Due To Degrade     NT DATE (9)     LEF NUMBER (0)     PREVISION     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER MONTH     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER MONTH     DAY   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR</td> <td>In 360   U.S. NUCLEAR RECORT (LER)     ILICENSEE EVENT REPORT (LER)     Image: Construction of the second state of the sec</td> <td>Image   U.S. NACLEAR REDUCT (LER)     LICENSEE EVENT REPORT (LER)     YNAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     Image: Crystal River Unit 3 (CR-3)     Emergency Feedwater Block Valves Fail To Close Due To Degraded Valve Condition Arrows (Crystal River Unit Reverse)     NT DATE (6)     Ler NUMBER (0)     Percent Date (7)     PARTNO     DAY   YEAR     Note (1)     DAY   YEAR     Partno   NUMBER     DAY   YEAR     Note (1)   Revision     NOT the control of the control of the feature (1)     PARTNO   NUMBER     NE (9)   1     1   Percent Date (2)     2   8   9   2     2   9   2   0   0   4   0   0   5   2   8   9   2   N/A     RATING   1   HINBER   NUMBER   MOMBER   NOA   N/A     Sec(9)   1   20.405(a)(10)   20.405(a)(20)   50.73(a)(20)   50.73(a)(20)     20.405(a)(10)   20.405(a)(10)   50.</td> <td>M 38   USE NUCLEAR REPORT (LER)   APPE     LICENSEE EVENT REPORT (LER)   ESTIMATED BURGH     Y NAME (1)   CRYSTAL RIVER UNIT 3 (CR-3)   0     O   CRYSTAL RIVER UNIT 3 (CR-3)   0     O   Effergency Feedwater Block Valves Fail To Close Due To Degraded Valve Condition And In The PARAMENTE CONTROL OF MARAGEMENT   0     NT DATE (6)   LER NUMBER (7)   RECORT DATE (7)   OTHIN     DAY   YEAR   VEAR   REQUENTIAL   REVISION     NUMBER (7)   0   4   0   0   5   2   8   2   8   2   9   2   0   4   0   0   5   2   8   2   8   2   8   2   8   2   8   2   8   2   8   2   8   2   9   2   0   0   5   2   8   2   8   2   8   2   8   2   9   7   0   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1</td> <td>M 388   0.5. MARLIAN RECORT OF COMMISSION   APPROVED C     LICENSEE EVENT REPORT (LER)   EXEMPTED BUILDEN PERIMETED PERIMETED PERIMETED DURBUNGET DATE (7)   DOCKET NUM     VEAR   VEAR   NUMBER   NUMBER   NUM   NUM     DAY   VEAR   PEOUENT(AL REVISION   REVISION   FACILITY NAMES     DAY   VEAR   NUMBER   NUMBER   NUM   NUM     DAY   VEAR   NUMBER   NUMMER   NUM   NUM     2   8   9   2   NUM   NUM   NUM     2   8   9   2   NUM   NUM   NUM   NUM     2   8   9   2   NUM   NUM   NUM   NUM   NUM     2   8</td> <td>M 388   0.5. MAXELAN RECORT (LER)   APPROVED ONE   EXPRESE     LICENSEE EVENT REPORT (LER)   EXPRESE   EXPRESE   EXPRESE     VAMAE (1)   CRYSTAL   RIVER UNIT 3 (CR-3)   0   5   0     0   5   0   0   5   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0</td> <td>M 362   U.S. NUCLEAR RECORDER CONTROL AND RECORDERING AND RECORDERS AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERS AND REPORT RESIDENCE.     V PARE (1)   CERN NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     DAY   YEAR   YEAR   NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REVENDING   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REVENDING   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   1   NUMBER (0)   REPORT TO THE RECORDERMENTS OF IS OTH \$   FACILITY NAMES   DO   DO   DO   DO   DO   DO   DO   DO   DO   DO</td>	In 395   U.S. NUCLEAR RECOUNT OF COMMISS     LICENSEE EVENT REPORT (LER)     YNAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     P     Emergency Feedwater Block Valves Fail To Close Due To Degrade     NT DATE (9)     LEF NUMBER (0)     PREVISION     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER MONTH     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     NUMBER   NUMBER MONTH     DAY   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     DAY   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR     YEAR   YEAR	In 360   U.S. NUCLEAR RECORT (LER)     ILICENSEE EVENT REPORT (LER)     Image: Construction of the second state of the sec	Image   U.S. NACLEAR REDUCT (LER)     LICENSEE EVENT REPORT (LER)     YNAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     Image: Crystal River Unit 3 (CR-3)     Emergency Feedwater Block Valves Fail To Close Due To Degraded Valve Condition Arrows (Crystal River Unit Reverse)     NT DATE (6)     Ler NUMBER (0)     Percent Date (7)     PARTNO     DAY   YEAR     Note (1)     DAY   YEAR     Partno   NUMBER     DAY   YEAR     Note (1)   Revision     NOT the control of the control of the feature (1)     PARTNO   NUMBER     NE (9)   1     1   Percent Date (2)     2   8   9   2     2   9   2   0   0   4   0   0   5   2   8   9   2   N/A     RATING   1   HINBER   NUMBER   MOMBER   NOA   N/A     Sec(9)   1   20.405(a)(10)   20.405(a)(20)   50.73(a)(20)   50.73(a)(20)     20.405(a)(10)   20.405(a)(10)   50.	M 38   USE NUCLEAR REPORT (LER)   APPE     LICENSEE EVENT REPORT (LER)   ESTIMATED BURGH     Y NAME (1)   CRYSTAL RIVER UNIT 3 (CR-3)   0     O   CRYSTAL RIVER UNIT 3 (CR-3)   0     O   Effergency Feedwater Block Valves Fail To Close Due To Degraded Valve Condition And In The PARAMENTE CONTROL OF MARAGEMENT   0     NT DATE (6)   LER NUMBER (7)   RECORT DATE (7)   OTHIN     DAY   YEAR   VEAR   REQUENTIAL   REVISION     NUMBER (7)   0   4   0   0   5   2   8   2   8   2   9   2   0   4   0   0   5   2   8   2   8   2   8   2   8   2   8   2   8   2   8   2   8   2   9   2   0   0   5   2   8   2   8   2   8   2   8   2   9   7   0   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1	M 388   0.5. MARLIAN RECORT OF COMMISSION   APPROVED C     LICENSEE EVENT REPORT (LER)   EXEMPTED BUILDEN PERIMETED PERIMETED PERIMETED DURBUNGET DATE (7)   DOCKET NUM     VEAR   VEAR   NUMBER   NUMBER   NUM   NUM     DAY   VEAR   PEOUENT(AL REVISION   REVISION   FACILITY NAMES     DAY   VEAR   NUMBER   NUMBER   NUM   NUM     DAY   VEAR   NUMBER   NUMMER   NUM   NUM     2   8   9   2   NUM   NUM   NUM     2   8   9   2   NUM   NUM   NUM   NUM     2   8   9   2   NUM   NUM   NUM   NUM   NUM     2   8	M 388   0.5. MAXELAN RECORT (LER)   APPROVED ONE   EXPRESE     LICENSEE EVENT REPORT (LER)   EXPRESE   EXPRESE   EXPRESE     VAMAE (1)   CRYSTAL   RIVER UNIT 3 (CR-3)   0   5   0     0   5   0   0   5   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0   0   0   5   0	M 362   U.S. NUCLEAR RECORDER CONTROL AND RECORDERING AND RECORDERS AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERING AND REPORTS RECORDERS AND REPORT RESIDENCE.     V PARE (1)   CERN NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     DAY   YEAR   YEAR   NUMBER (0)   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REVENDING   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   EER NUMBER (0)   REVENDING   REPORT DATE (7)   OTHER FACILITY NAMES   DO     0   1   NUMBER (0)   REPORT TO THE RECORDERMENTS OF IS OTH \$   FACILITY NAMES   DO   DO   DO   DO   DO   DO   DO   DO   DO   DO	M 360   U.S. RUCLLAFFECIAL CHY COMMISSION   APPROVED ONE RO 3156-0     LICENSEE EVENT REPORT (LER)   ESTIMATE BURGEN FEE READONE TO CRYSTAL RIVER UNIT 3 (CR-3)   DOCKET NUMBER (0)     ************************************	Mail Set     D.B. INCLEMPIE GLANOW COMMISSION     APPROVE DOE NO. 3150-014       LICENSEE EVENT REPORT (LER)     EDTIMITED BUILTON REQUEST to COMMYNEE     EDTIMITED BUILTON REQUEST to COMMYNEE       VMAME (1)     CRYSTAL RIVER UNIT 3 (CR-3)     DOCKET NUMBER (0)     DOCKET NUMBER (0)       0     6     0     0     5     0       0     6     0     0     5     0     0       0     6     0     0     5     0     0     5     0       0     6     0     0     5     0     5     0     0     5     0     2       0     Emergency Feedwater Block Valves Fail To Close Due To Degraded Valve Condition And Inadequate Motor Operator     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0     0     5     0	Bit 300     D.S. MACLENT REMARKING COMMERCIAL     APPROVED SUBJECT     APPROVED			

On April 24, 1992, Crystal River Unit 3 (CR-3) was in MODE 1 (POWER OPERATION) at 65.5% of Rated Thermal Power (RTP). During April 1992, Florida Power Corporation (FPC) engineering personnel were revising a test procedure associated with differential pressure (D/P) testing emergency feedwater (EFW) block valve EFV-14 in accordance with Nuclear Regulatory Commission (NRC) Generic Letter (GL) 89-10. The maximum D/P previously used in earlier testing and evaluations was determined to not represent worst case conditions. At that time, it was decided to close EFV-14 and a similar valve EFV-11 as an interim corrective action. On May 1, with CR-3 in MODE 5 (COLD SHUTDOWN) at 0% RTP, further testing revealed that none of the EFW block valve, would fully close against the calculated worst case D/P. The root cause of the inability of the valves to close is attributed to valve condition due to normal wear. The affected EFW block valve/motor operator/cable combinations will be modified to enable the valves to meet the D/P test requirements.

NRC FORM 5 964 (6-89)	U.5. NUCLE	APPROVED OMB NO. 3150-0104 EXPIRES 4/30/92													
	LICENSEE EVENT REPORT (LE TEXT CONTINUATION	ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 50.0 HOURS, FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20565, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON DC 20503.													
FACILITY NAME (1)		DOCKET NUMBER (2)		-	LER NUMBER (8)					PAGE (3)			3)		
				Y	EAR		SEQ.	UENTA MBER	4		REVISION NUMBER				
GITT	STAL THEFT SHITTS (STITE)	0 5 0 0 0 0 0	0 2	9	2	-	0	0	4		010	0	2 0	FI 0	1 6

# EVENT DESCRIPTION:

On October 13, 1991, Crystal River Unit 3 (CR-3) was shut down in MODE 5 (COLD SHUTDOWN) at 0% of RATED THERMAL POWER (RTP) and 0 MW. During testing conducted on Emergency Feedwater (EFW) valve [BA, V] EFV-14, it was determined that the valve would stroke open satisfactorily, but would not stroke fully closed against 1445 pounds per square inch differential (psid) pressure across the valve. EFV-14 is the block valve isolating the motor [MO] driven EFW pump [P], EFP-1 discharge, to the "A" Once Through Steam Generator (OTSG) [SG]. The calculated worst case accident differential pressure (D/P) was 1367 psid across the valve (see Attachment 1, CR-3 Emergency Feedwater System). A report to the Nuclear Regulatory Commission (NRC) was not made at that time because the assumptions in the calculation were considered to be overly conservative and it was expected that the actual worst case D/P would be less than the 1367 psid value. The valve was considered operable because the valve had passed the D/P test at 1265 psid and the expected worst case D/P was expected to be much lower than this value. The revised March 6, 1992 calculation confirmed the worst case D/P would be less than 1367 (1219 psid). However while Florida Power Corporation engineering personnel were developing the procedure revisions to retest the valve a new problem was identified. Flow assumptions in the calculation were revised based on detailed review by several System Engineers and trial simulator scenarios. It was determined that the complex nature of the wide variety of transients prevented accurate analytical prediction of worst case D/P. It was therefore decided to bound the worst case D/P with total head of the motor driven emergency feedwater pump with recirculation flow. This revision of the calculation was issued April 28, 1992.

Historically, the standby position for EFW block valves has been fully open to help assure EFW flow to the steam generators if required. On April 24, 1992, as a result of the unverified results from the reevaluation of the maximum expected D/P calculation, a decision was made to close EFV-14 and similar valve EFV-11 until the upcoming refueling outage. EFV-11 is the EFW block valve from the turbine [TRB] driven EFW pump, EFP-2, to the "A" OTSG. Both valves would have stroked open automatically if required by the EFW Initiation and Control System (ErIC) [JB] or as needed in manual via operator action. Both valves had been cycled open, timed, and found to be well within the EFW actuation response time requirements listed in the plant Technical Specifications (T.S.). Additionally, EFV-14 had been tested in the open direction at 1445 psid and had performed satisfactorily. Maintaining EFV-11 and EFV-14 in a closed standby position was thus determined to negligibly reduce the reliability of EFW. It was decided at the same time to maintain EFV-32 and EFV-33, which were produced by a different manufacturer than EFV-11 and 14, in the normal standby position of open. EFV-32 is the EFW block valve isolating EFP-2 discharge from the "B" OTSG and EFV-33 is the EFW block valve isolating EFP-1 discharge from the "B" OTSG. In addition, the plant T.S. require a response time of 50 seconds for full EFW actuation on low OTSG level. The stroke time of EFV-32

NRC FORM 385A (6-89)	U.B. NUCLE	EAR REQULATORY COMMISSION		APPROVED OMB NO. 3150-0104 EXPIRES 4/30/92												
	LICENSEE EVENT REPORT (LE TEXT CONTINUATION	ER)	ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 50.0 HOURS. FORMARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (PS30), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (0150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON DC 20503.													
FACILITY NAME (1)		DOCKET NUMBER (2)			1	ER NUMBE	R (6)				p,	ADE (3	)			
CRYS	TAL RIVER UNIT 3 (CR-3)			YE	AR	NUMBER		REVI	SION BER							
		0 5 0 0 0 3 0	2	9	2	0 0	4	- 0	0	0	3 0	F 0	5			

TEXT (If more space is required. User additional NRC Form 366A s (17)

and EFV-33 has been determined to be 60 seconds vice the 30 second stroke time exhibited by EFV-11 and EFV-14, therefore EFV-32 and EFV-33 could not have met the T.S. requirement if maintained in the closed position.

EFV-11 and EFV-14 are Chapman 6" gate valves actuated by Limitorque type SMB-0 motor operators. Each motor operator is rated at 25 foot-pounds (ft-lb,) torque, 1.805 motor horsepower, 1900 revolutions per minute (RPM) motor speed, with a unit ratio of 51.8:1. EFV-32 and EFW-33 are Velan 6" gate valves, also equipped with Limitorque type SMB-0 motor operators; however, the motor operator ratings are significantly different with each operator exhibiting 15 ft-lb, torque, 1.083 motor horsepower, 1900 RPM motor speed, and a unit ratio of 102.6:1.

On April 28, 1992, the bounding calculations associated with the reevaluation of maximum expected D/P across EFV-14 were finalized, resulting in a revision from 1219 psid up to 1501 psid. At that time, CR-3 was operating in MODE 1 (POWER OPERATION) at 65.5% of RTP and 522 MW, and was preparing to shut down for refueling. The event was then reported to the NRC at 1653 via the Emergency Notification System (ENS) per 10CFR50.72(b)(1)(ii)(B). On May 1, with the plant in MODE 5 (COLD SHUTDOWN) at 0% RTP, 0 MW, and preparing to enter MODE 6 (REFUELING), EFW block valves EFV-11, EFV-32, and EFV-33 were stroke tested at full D/P, at which time it was determined that none of these valves would stroke fully closed against the revised worst case accident D/r of 1501 psid across the valves. The NRC was notified of the event via ENS at 0136 on May 2 per 10CFR50.72(b)(1)(ii)(B). This report is being submitted in accordance with 10CFR50.73(a)(2)(ii)(B).

There are no requirements in the plant T.S. regarding either the low OTSG pressure EFW isolation or the OTSG overfill protection; thus, the EFW system was never considered inoperable as a result of the D/P testing.

### CAUSE OF EVENT:

The inability of all four EFW block valves to stroke fully closed during the D/P testing has been attributed to normal degradation in the general condition of the valves due to wear and tear experienced during plant operation and previous surveillance testing. Recent industry information has revealed the operator's thrust ratings may not be sufficient for this application.

## EVENT ANALYSIS:

These four EFW block valves function primarily to isolate the OTSGs from EFW sources when certain conditions are met. The two specific conditions thet require isolation are low OTSG pressure and high OTSG level. EFIC design provides automatic closure for EFW block valves and the associated EFW control valves [FCV]

NRC FORM 386A (6-89)	U.S. NUCLEAR REQULATORY: COMMISSION								APPROVED OMB NO. 3150-0104 EXPIRES 4/30/92												
	LICENSEE EVENT REPORT (LEI TEXT CONTINUATION	ORT (LER)						ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 50.0 HOURS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530). U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK, REDUCTION PROJECT. (0185-0104). OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON DC 20503.													
FACILITY NAME (1)	FACILITY NAME (1)		DOOKET NUMBER (2)						LER NU					LER NUMBER (6)				PAGE (3)			
CRYSTAL RIVER UNIT 3 (CR-5)									YE	EAR		NUM	NTIAL BER		NUM	SIGN					
1. 1. S. S. S.		0	5 0	0	0	3	0	2	9	2		0	0   4		0	0	0	4	OF	0	5

TEXT If more spalle is required. (Ise additional NRC Form 386A's (17)

for these conditions. The isolation on low pressure serves to prevent overcooling of the Reactor Coolant System (RCS) [AB] during accident scenarios such as a main steamline [SB] rupture, whereas the high level isolation provides OTSG overfill protection and thus prevents EFW carryover into the main steam lines. EFW block valves and control valves receive open/control signals on EFIC actuations provided the described conditions do not exist. The overfill condition does not roduce high D/P conditions.

From the standpoint of potential valve performance during a plant casualty, it is important to note that EFV-14 and EFV-33 were successfully stroked to their fully closed positions against D/P values of 1265 psid and 1274 psid, respectively, during testing conducted in 1987. It is highly unlikely that any transient situation would result in such a high D/P condition, muricess the calculated D/P value of 1501 psid. The failure to achieve isolation the affected OTSG during the worst case steam line rupture would result in minimal overcooling of the RCS. There would be negligible effect on the consequences of a steam line break to the general public or site personnel as a result of EFW block alve performance.

## CORRECTIVE ACTION:

The affected EFW block valves and/or their associated motor operators will be modified such that all four EFW block valves ultimately can be verified via testing to meet the worst case closing D/P requirement of 1501 psid.

Results of this testing and similar testing conducted at other nuclear facilities are being factored into FPC's GL 89-10 Motor Operated Valve Program to determine if similar problems exist with other valves. This will include an in-depth evaluation of calculations involved in determining closing D/P requirements. Preliminary results indicate that one additional valve will be modified prior to restart.

In addition, the motor operators of all valves are being modified in light of new information from the GL 89-10 program.

## PREVIOUS SIMILAR EVENTS:

There have been no previous events where safety-related motor operated valves have been unable to meet design basis closing D/P requirements.



4