



**Florida
Power**

CORPORATION

Crystal River Unit 3
Docket No. 50-302

January 15, 1991
3F0191-12

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

Subject: Licensee Event Report (LER) 90-019

Dear Sir:

Enclosed is Licensee Event Report (LER) 90-019 which is submitted in accordance with 10 CFR 50.73.

Sincerely,

Rolf C. Widell
Director, Nuclear Operations Support
Nuclear Production

WLR:mag

Enclosure

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

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P 830), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) CRYSTAL RIVER UNIT 3	DOCKET NUMBER (2) 0 5 0 0 0 3 0 2	PAGE (3) 1 OF 0 3
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TITLE (4) **An Incorrect Motor Installed on a Valve Operator Results in a Condition Outside the Design Basis**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
1	2	14	9	0	0	1	5	9	N/A		0 5 0 0 0 0
1	2	14	9	0	0	1	5	9	N/A		0 5 0 0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)

OPERATING MODE (8) 5	20.402(b)	20.405(c)	50.73(a)(2)(ix)	73.71(b)
POWER LEVEL (10) 0 0 0	20.405(a)(1)(ii)	50.38(c)(1)	50.73(a)(2)(iv)	73.71(e)
	20.405(a)(1)(vi)	50.38(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
	20.405(a)(1)(iv)	<input checked="" type="checkbox"/> 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)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME W. K. BANDHAUER, NUCLEAR OPERATIONS SUPERINTENDENT	TELEPHONE NUMBER AREA CODE: 9 0 4 NUMBER: 7 9 5 7 6 4 8 6
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single space typewritten lines) (16)

On December 14, 1990, Crystal River Unit 3 was in MODE 5 (Cold Shutdown) for required maintenance. During this outage, the pressurizer spray control valve (RCV-14), a non safety-related, non Environmentally Qualified (EQ) valve, was being repacked. In order to accomplish this task, the valve motor operator was removed. While it was removed from the valve, the motor was being replaced. In the course of replacement, it was discovered that the installed motor was not as originally specified for this valve. The cause of this event is not specifically known. A review of plant records revealed no document that authorized the change. An engineering calculation was performed and it showed that the installed motor was acceptable. A plant modification record was generated to change the design documents. This deficiency is reportable under 10 CFR 50.73 (a)(2)(ii)(B). Several other valves in similar service in the plant will be visually examined to confirm that this is an isolated event.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. 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 (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) CRYSTAL RIVER UNIT 3	DOCKET NUMBER (2) 0 5 0 0 0 3 0 2	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 0	- 0 1 9	- 0 0	0 2	OF	0 3

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

EVENT DESCRIPTION

On December 14, 1990, Crystal River Unit 3 was in MODE 5 (Cold Shutdown) for a short maintenance outage. During this outage, the pressurizer spray control valve (RCV-14) [AB,VLV], a non safety-related, non Environmentally Qualified (EQ) valve, was being repacked. In order to accomplish this task, the valve motor operator was removed. The valve motor operator consists of a motor and a drive unit or gearbox. While the operator was removed from the valve, the motor was being replaced. Motor replacement is the normal practice each time the valve is removed from service for maintenance. In the course of replacement, it was discovered that the installed motor was not as originally specified for this valve. This is a condition outside the design basis for this valve and reportable under 10 CFR 50.73 (a)(2)(ii)(B).

There was no failure of the valve or operator associated with this discrepancy. The original design specified a motor with a 25 foot-pound torque rating, the motor removed had a 15 foot-pound rating. This lower torque did not render the valve inoperable or cause any degradation in its operation. An engineering calculation was performed and it was shown from the calculation that the lower torque motor was acceptable in this application.

CAUSE

Florida Power Corporation (FPC) has been unable to determine the exact cause of this event. A review of the plant design documents was unable to locate modification records allowing the use of a 15 foot-pound torque motor prior to this event. A search of the plant records was unable to conclusively determine when the incorrect motor was installed on the valve.

EVENT EVALUATION

This valve operator, which had the lower torque motor, was removed from the valve in the reactor coolant system. The valve operator was in service from at least the last refueling outage (which ended June 1990). The valve had limit switch problems during that time period, but these have now been corrected. Further, it has been determined that these problems with the limit switch were not related to the torque rating of the motor. Additionally, FPC performed engineering calculations that showed the valve had a sufficient operating margin, including all the normally applied conservatisms; and on the basis of those calculations, changed the design documents to reflect that a 15 foot-pound torque motor is acceptable in this application. Since the valve showed acceptable service and since the calculations showed an acceptable operating margin, it is the conclusion of FPC that this event had no safety consequences.

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			0 1 9	0 0	0 3	OF	0 3

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

CORRECTIVE ACTION

An engineering calculation was performed to determine if the installed motor was acceptable. The calculations demonstrated an acceptable sizing margin with a 15 foot-pound torque motor. A plant modification record was generated to change the design documents. A safety review was performed as required by 10 CFR 50.59 as part of the plant modification record. The 15 foot-pound torque motor was reinstalled on the valve operator and the valve returned to service. The valve is performing acceptably in this configuration.

In June 1989, the NRC issued Generic Letter 89-10, which required the licensees to establish a program to test and inspect the Motor Operated Valves (MOVs) in their facility. At CR-3 the MOV program has been written and is in the process of being implemented. Due to the number of valves involved, a five year period was established in which to fully implement this program. The valve, RCV-14 [AB,VLV], is covered by the program. It was not scheduled for its first programmatic inspection and test until a future outage. For this reason, it had not been tested as part of the program to date. In the future, all work on this operator will be controlled by this program.

FPC has identified several other valves that are not safety related and not part of 10 CFR 50.49 EQ program that may be susceptible to a similar event, and these valves will be visually examined to confirm that this is an isolated event.

PREVIOUS SIMILAR OCCURRENCES

There are no previous occurrences of an incorrect motor being installed in a valve operator at CR-3.