



**Florida
Power**
CORPORATION

Crystal River Unit 3
Docket No. 50-302

May 15, 1992

3F0592-14

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

Subject: Licensee Event Report (LER) 92-003

Dear Sir:

Enclosed is Licensee Event Report (LER) 92-003 which is submitted in accordance with 10 CFR 50.73.

Sincerely,

G. L. Boldt
Vice President
Nuclear Production

EEF:mag

Enclosure

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

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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-50), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, 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 2	— 0 0 3	— 0 0	0 2	OF 0 4

TEXT (If more space is required, use additional NRC Form 388A's.) (1)

EVENT DESCRIPTION

On August 1, 1991, Crystal River Unit 3 (CR-3) was operating in MODE 1 (POWER OPERATION) at 100% reactor power. A potential problem was identified during development of a calculation to support the basis for assuring Emergency Diesel Generator (EDG) Diesel Fuel Oil Storage Tanks (DFT) [DC,TK] 1 and 2 volumes were maintained as required by the Technical Specifications (TS) and CR-3's design basis. An evaluation of the potential problem was initiated.

On April 16, 1992, it was determined that past procedures for obtaining DFT level had been erroneously revised. That error was compounded by an error in the table which the operator uses to convert the level reading, in inches, into "Usable Volume (gallons)", and resulted in one occurrence of having insufficient fuel oil in the storage tanks to meet the design basis and 14 occurrences in failure to meet the TS requirements between January 13, 1982 and November 13, 1985.

The CR-3 design basis is to have sufficient fuel oil in the storage tanks to support one EDG [EK,DG], for a seven day operational requirement in the event of a prolonged loss of offsite power. On January 1, 1982, with CR-3 in MODE 1, the total on site fuel oil available in the DFTs and Day tanks for EDG use was 35,939 gallons instead of the 36,700 gallons required to run the diesel at 100 percent rated load for seven days or 168 hours. The shortage of 761 gallons meant the diesel only had enough fuel for 164.5 hours of operation.

TS 3.8.1.1 requires CR-3 to have two EDGs each with a separate fuel storage system containing a minimum volume of 20,300 gallons of fuel during MODES 1, 2, 3, and 4. TS 3.8.1.2 requires CR-3 to have one EDG with a fuel storage system containing a minimum volume of 20,300 gallons of fuel during MODES 5 and 6. The events described occurred over a sixteen year period beginning in 1976. However, data is only available dating back to 1982 to determine if they did indeed occur. Enclosure 1 of this report provides the dates and the extent of the non compliance occurrences which occurred prior to 1986. All events occurred during MODE 1 with none discovered during MODES 2,3,& 4. The TS and design basis events are reported in accordance with 10 CFR 50.73 (a)(2)(i)(B) and (a)(2)(ii)(B).

EVENT EVALUATION

The largest discrepancy between the amount of fuel required by TS to be on site and the actual amount on site was 3427 gallons. The lack of 3427 gallons, at most, of diesel fuel out of 40,600 gallons is a small percent of the total. While the TS do require all 40,600 gallons to be on site for emergency operation, even under the worst expected conditions it would be possible to order and receive more fuel within the available time.

In the single event of lack of compliance with the design basis which occurred in 1981, additional fuel could have been ordered and received within the available time.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATES 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 9 2	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 306A's) (17)

It was standard policy to order fuel when the minimum specification was no longer met and that would have occurred several days before the available inventory was depleted. There was, therefore, no impact on the health and safety of the public at any time due to the shortage of fuel on site.

CAUSE

The root cause of these events was personnel error in the procedure revision process. The procedural error, introduced when the procedure revisor failed to recognize that there was some quantity of oil in the DFTs which was "unusable", was apparently a result of lack of knowledge of the diesel fuel system. Different revisional errors occurring over several years combined to reduce the accuracy of information used in the procedure revision process. These events were: 1) changing from the use of the installed level instrument to sounding the tank to determine oil volume; 2) revision of the table used to convert feet and inches into "usable" gallons in the tank to just "gallons"; 3) changing a reference point for the level measurement; and 4) failure to recognize that the suction point of the foot valve [EK,V] of the DFTs was approximately six inches above the bottom of the tank. The person performing the revision was not an engineer. The lack of consistent engineering involvement in the procedure revision process during the period 1976 through 1986 may have contributed to the erroneous changes.

CORRECTIVE ACTION

FPC will field verify the actual locations/levels of the DFT foot valves to support final calculations, administrative limits, and plant enhancement efforts.

FPC will also verify the relationship of suction point to tank level for other tanks having a TS required minimum volume to be retained for accident response.

In 1991, the section of the Operating Procedure which deals with tank volumes was revised to incorporate higher administrative limits to assure adequate fuel level in the DFTs to meet commitments. The level to volume relationship was also recalculated to improve the accuracy of measurement conversion from feet and inches to "usable" gallons. The Surveillance Procedures were also revised and now require the level in the tanks be determined by manual measurement instead of using installed instrumentation due to inaccuracies of the installed instrumentation.

In the period 1986 to the present, several policy improvements and procedure revision process improvements have been instituted which collectively prevent the kinds of errors which led to these events. No further action is necessary.

PREVIOUS SIMILAR EVENTS

There have not been any similar events in the operating history of CR-3.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 60.0 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 (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON DC 20503.

FACILITY NAME (1) CRYSTAL RIVER UNIT 3 (CR-3)	DOCKET NUMBER (2) 0 5 0 0 0 3 0 2 9 2	LER NUMBER (6)			PAGE (3) 0 0 3 0 0 0 4 OF 0 4
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
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TEXT (If more space is required, Use additional NRC Form 305A's (17))

ENCLOSURE 1

SUMMARY OF EVENTS CONCERNING LACK OF COMPLIANCE WITH
TECHNICAL SPECIFICATION 3.8.1.1.b OR 3.8.1.2.b

EVENT	DATE	GALLONS*	TANK
1	01/13/82	3427	DFT-1A
2	01/14/82	1634	DFT-1B
3	03/26/82	1561	DFT-1B
4	04/27/82	462	DFT-1A
5	04/28/82	462	DFT-1A
6	07/26/82	1931	DFT-1A
7	08/24/82	2526	DFT-1B
8	11/24/82	1487	DFT-1A
9	11/09/83	973	DFT-1B
10	02/15/84	681	DFT-1A
11	03/14/84	608	DFT-1B
12	05/26/84	535	DFT-1A
13	05/26/84	1634	DFT-1B
14	11/13/85	1634	DFT-1B

* Number of gallons by which CR-3 failed to meet TS.