

## LICENSEE EVENT REPORT

EXHIBIT A

CONTROL BLOCK:                      (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 F L C R P 3 2 0 0 - C 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5

7 8 9 14 15 25 26 30 57 CAT 58

CON'T

01 L 6 0 5 0 - 0 3 0 2 7 0 5 1 6 8 3 8 0 5 2 7 8 3 9

7 8 90 91 DOCKET NUMBER 98 99 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 In April 1983, two pinhole leaks in piping on the downstream side of two

03 Nuclear Service Heat Exchanger Discharge Isolation Valves were discovered,

04 indicating deterioration of the inner PVC liner, leading to abnormal corro-

05 sion/erosion of the pipe wall. This degradation is considered reportable

06 under T.S. 6.9.1.8(i). This is the first event of this type and the twen-

07 tieth report under T.S. 6.9.1.8(i).

08

7 8 9 80

09 W E 11 B 12 A 13 P I P E X X 14 E 15 Z 16

7 8 9 10 11 12 13 18 19 20

17 8 3 0 2 2 0 1 T 0

21 22 23 24 25 27 28 29 30 31 32

LER/RO REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.

B 18 F 19 Z 20 Z 21 0 0 0 0 Y 23 N 24 A 25 P 4 3 2 26

33 34 35 36 37 40 41 42 43 44 47

ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPD-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 Design inadequacy and insufficient surveillance are apparently the cause of

11 this failure. Identified degraded spools are being repaired or are being

12 replaced with piping that has an improved liner. A surveillance program

13 is being initiated to periodically check the piping for wall thinning.

14

7 8 9 80

15 H 28 0 0 0 29 NA 30 B 31 Operator Observation 32

7 8 9 10 12 13 44 45 46 80

FACILITY STATUS % POWER OTHER STATUS METHOD OF DISCOVERY DISCOVERY DESCRIPTION

16 Z 33 Z 34 NA 35 NA 36

7 8 9 10 11 44 45 46 80

RELEASED OF RELEASE AMOUNT OF ACTIVITY LOCATION OF RELEASE

17 0 0 0 37 Z 38 NA 39

7 8 9 11 12 13 44 45 46 80

PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION

18 0 0 0 40 NA 41

7 8 9 11 12 13 44 45 46 80

PERSONNEL INJURIES NUMBER DESCRIPTION

19 Z 42 NA 43

7 8 9 10 44 45 46 80

LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION

20 N 44 NA 45

7 8 9 10 44 45 46 80

PUBLICITY ISSUED DESCRIPTION

NAME OF PREPARER J. L. Bufo PHONE: (904) 795-6486

7 8 9 10 58 59 80

## SUPPLEMENTARY INFORMATION

REPORT NO: 50-302/83-022/01T-0  
FACILITY: Crystal River Unit #3  
REPORT DATE: May 27, 1983  
OCCURRENCE DATE: May 16, 1983

### IDENTIFICATION OF OCCURRENCE:

Florida Power Corporation has discovered abnormal corrosion/erosion in seawater piping adjacent to Nuclear Service Heat Exchangers. This degradation is considered to be reportable under Technical Specification 6.9.1.8.i.

### CONDITIONS PRIOR TO OCCURRENCE:

Crystal River Unit 3 was in MODE 6 (Refueling) when the degradation was discovered.

### DESCRIPTION OF OCCURRENCE:

In April 1983, during Refuel IV, two pinhole leaks in piping on the downstream side of two Nuclear Service Heat Exchangers were discovered. Investigations revealed degradation of the piping walls of six spool pieces, including the Polyvinyl Chloride (PVC) liner. Uniform film corrosion/erosion is normally considered and provided for in piping design, but this erosion, pitting and crevice corrosion was not expected.

### DESIGNATION OF APPARENT CAUSE:

This occurrence was apparently caused by a design inadequacy and may have been discovered by a surveillance program. The design problems include the following:

- (1) Geometry: Sharp corners where the upper Heat Exchanger discharge enters the vertical run from the lower Heat Exchanger adds to the turbulence in that area. The vertical run on the discharge could also contribute to abrasion by suspended debris.
- (2) Flow: Flow is by nature erosive and when coupled with degraded material, suspended solids, and added turbulence, it becomes more abrasive.

### ANALYSIS OF OCCURRENCE:

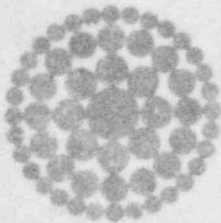
The abnormal degradation of the seawater system was discovered and corrected.

CORRECTIVE ACTION:

During Refuel IV, identified degraded piping will be repaired or will be replaced with similar pieces that have a urethane liner. In addition, Florida Power Corporation will initiate a surveillance program to monitor the condition of the piping.

FAILURE DATA:

This is the first occurrence of this type and the 20th occurrence reported under Technical Specification 6.9.1.8.i.



**Florida  
Power**  
CORPORATION

May 27, 1983  
3F-0583-21

Mr. James P. O'Reilly  
Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
Office of Inspection & Enforcement  
101 Marietta Street N.W., Suite 2900  
Atlanta, GA 30303

Subject: Crystal River Unit 3  
Docket No. 50-302  
Operating License No. DPR-72  
Licensee Event Report No. 83-022

Dear Mr. O'Reilly:

Enclosed is Licensee Event Report 83-022/01T-0 and the attached supplementary information sheet which are submitted in accordance with Technical Specification 6.9.1.8.i. This report supplies follow-up information to the prompt report, dated May 17, 1983.

Should there be any questions, please contact this office.

Sincerely,

G. R. Westafer  
Manager,  
Nuclear Licensing and Fuel Management

BCT/caw

Enclosure

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

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