

NRC FORM 364  
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

**LICENSEE EVENT REPORT**

EXHIBIT A

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

01 FILICRF 32 000-000000-000 34111111 4 5  
 7 8 9 14 15 25 26 30 37 CAT 38

CON'T  
 01 REPORT SOURCE L 6 005 01 - 013 012 7 013 219 8 13 8 10 112 71 8 4 9  
 7 8 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10  
 02 Eleven (11) process instruments required by Technical Specification  
 03 (T.S. 3.3) were found to be out of calibration during Mode 5 surveillance  
 04 testing and are being reported as suggested by Regulatory Guide 1.16.  
 05 A summary is attached as Enclosure A. Any margin reduction was not  
 06 considered to significantly affect plant safety due to margin available  
 07 from other sources. This is the tenth report under Regulatory Guide  
 08 1.16.  
 7 8 9

09 SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE  
 1A 11 D 12 Z 13 I N S T R U I 14 T 15 Z 16  
 7 8 9 10 11 12 13 18 19 20

17 LER RD REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.  
 183 21 039 26 03 29 X 31 32  
 7 8 21 22 23 24 26 27 28 29 30 31 32

ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPD-4 FORM SUB PRIME COMP. SUPPLIER COMPONENT MANUFACTURER  
 E 18 X 19 Z 20 Z 21 000 22 Y 23 N 24 A 25 B 0 4 5 26  
 33 34 35 36 37 40 41 42 43 44 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27  
 10 The cause of this occurrence is procedural inadequacy in that either 1)  
 11 the string error allocation or 2) the component tolerance or 3) both 1  
 12 & 2, as reflected in the procedure limits were incorrect. The affected  
 13 RPS procedures were revised to conform to manufacturer's recommended  
 14 tolerances and to incorporate other setpoint changes recommended by  
 B&W. Long range plans include upgrading instruments having excessive  
 drift, specifically process transmitters.  
 7 8 9

15 FACILITY STAT IS % POWER OTHER STATUS 30 METHOD OF DISCOVERY DISCOVERY DESCRIPTION 32  
 h 28 000 29 N/A 31 B Mode 5, Surveillance testing  
 7 8 9 10 12 13 44 45 46 80

16 ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY 35 LOCATION OF RELEASE 36  
 Z 33 Z 34 N/A N/A  
 7 8 9 10 11 44 45 80

17 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION 39  
 000 37 Z 38 N/A  
 7 8 9 11 12 13 80

18 PERSONNEL INJURIES NUMBER DESCRIPTION 41  
 000 40 N/A  
 7 8 9 11 12 80

19 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION 43  
 Z 42 N/A  
 7 8 9 11 12 80

20 PUBLICITY ISSUED DESCRIPTION 45 NRC USE ONLY  
 N 44 N/A  
 7 8 9 10 80

NAME OF PREPARER J. L. Bufe'/D. P. Cullen PHONE 795-3802

84020304C9 840127  
PDR ADOCK 05000302  
S PDR

#### SUPPLEMENTARY INFORMATION

REPORT NO: 50-302/83-039/03X-1  
FACILITY: Crystal River Unit #3  
REPORT DATE: January 27, 1984  
OCCURRENCE DATE: March 29, 1983

#### IDENTIFICATION OF OCCURRENCE:

Eleven process instruments required by Technical Specification (TS) 3.3 were found to be out of calibration during Mode 5 surveillance testing and are being reported as suggested by Regulatory Guide 1.16. A summary is attached as Enclosure A.

#### CONDITIONS PRIOR TO OCCURRENCE:

MODE: 5 (COLD SHUTDOWN), Refueling Outage.

#### DESCRIPTION OF OCCURRENCE:

During shutdown surveillance, eleven instrument setpoints were found outside established procedural limits. In seven cases, the channel setpoints would have exceeded operational mode Technical Specification limits. The remaining four are reported because operation outside Technical Specification level limits could have gone undetected.

Several additional "strings" or channels contained components which exhibited drift outside procedural limits but did not cause their respective strings to exceed any Technical Specification limits and, hence, are not included.

#### DESIGNATION OF APPARENT CAUSE:

The cause of this occurrence is procedural inadequacy in that either the string error allocation or the component tolerance or both as reflected in the procedure limits, were inconsistent with design assumptions. Additionally, "as left" and "as found" tolerance bands were often identical; hence, the procedures allowed poor calibration practices, which together with normal drift, resulted in the subsequent "as found" setpoint exceeding the administrative procedure limit. Finally, actual drift may have exceeded anticipated drift in some cases.

#### ANALYSIS OF OCCURRENCE:

In many cases, error tolerances allocated to individual components were inconsistent with design assumptions. Consequently, normal instrument drift for a component frequently exceeded procedural limits. However, a Babcock & Wilcox (B&W) validation review of reactor protection system (RPS) calibration procedures typically found total string errors to be correct.

For cases where the observed setpoint drift exceeded both the original "incorrect" tolerances mentioned above and the subsequent revised tolerances, the safety concern can be explained as follows:

If the actual observed component error frequently exceeds the presumed limit, then the associated total string error analysis might be invalidated, especially in multiple channel or frequently recurring out-of-tolerance cases. Isolated occurrences, by themselves, might show that a design assumption could have been exceeded but do not necessarily represent a significant safety concern.

Component tolerances, via associated error analysis, are used in establishing TS limits in support of the various accident analyses. Therefore, frequent excessive drift could imply that the calculated TS limits might be less conservative than previously thought. However, any margin reduction is not considered likely to significantly affect plant safety due to margin available from other sources (e.g., higher than assumed RC flow, lower than assumed cycle-specific total peaking factors and analyses done at 2568 or 2772 MWt versus 2544 MWt).

#### CORRECTIVE ACTION:

The affected RPS procedures were revised to conform to manufacturer's recommended tolerances and to incorporate other setpoint changes recommended by B&W. Some instruments which have exhibited poor performance are being replaced as part of unrelated modification packages (EFIC, Appendix R, Remote Shutdown, Environmental Qualification, etc.). The analyses for components which exhibited drift outside valid design assumptions but which did not cause instrument strings to violate Technical Specification limits will be reviewed to see if the error analyses have been affected and will be used as an input to subsequent analyses.

#### FAILURE DATA:

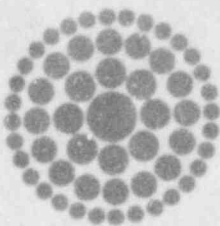
This is the tenth report under Regulatory Guide 1.16.

ITEMS DISCOVERED WHILE SHUTDOWN TO  
BE OUT OF CALIBRATION AND REPORTED  
AS SUGGESTED BY REGULATORY GUIDE 1.16

ASSOCIATED TECH SPEC	SENSOR TAG NUMBER	FUNCTION	NO DEVICE	MFG.	DATE DISCO- VERED	DATE RECALIB	PROCEDURAL LIMIT (ALLOW. TOL.)	"AS FOUND" SETPOINT (ERROR)	TS LIMIT
3.3.3.5	RC-1-LT1	Pressurizer Level	1. Indicator RC-1-LI	R369 B045	03/29/83	03/31/83	(+5")	(-6")	*
	RC-1-LT2	Pressurizer Level	2. Recorder RC-1-LR 3. Indicator RC-1-LI3	R369 B045 B045	04/02/83	04/02/83	(+7") (+5")	(-15") (-10")	*
	RC-1-LT3	Pressurizer Level	4. Indicator RC-1-LI2	R369 B045	04/04/83	04/06/83	(+5")	(-10")	*
3.3.1.1	RC-14B-DPT2	RC Flow	5. Flux/Flow/Imbal Trip B/S	B045 B045	04/12/83	04/15/83	100.75 (+0.5%)	102.19%FP	101.3FP
3.3.1.1	RC-3A-PT1	RC Pressure	6. Low Pressure Trip 7. Variable Low Press	W121 B045 B045	04/23/83	04/23/83	1803.6 (+3.6 psi)	1794.4 psi	1800 psi
3.3.1.1	RC-3B-PT1	RC Pressure	8. Low Pressure Trip 9. High Pressure Trip 10. Variable P/T Trip	W121 B045 B045 B045	04/28/83	04/29/83	1803.6+3.6 psig 2296+4 psig (4 psi)	1798.73 psi 2302.12 psi (5.59 psi)	1800 psi 2300
3.3.3.5	RC-4B-TE1	Loop B Temp	11. Temperature Trans- mitter (Input to: indication and alarm)	R369 R369	04/29/83	04/29/83 (replaced)	(+1 to 8°F)	(6°F)	

\* Operation outside Level Limits in Technical Specification could have gone undetected.





84 JAN 31 A10:30

**Florida  
Power**  
CORPORATION

January 27, 1984  
3F0184-24

Mr. James P. O'Reilly  
Regional Administrator, Region II  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
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. 83-039

Dear Sir:

Enclosed is Licensee Event Report (LER) No. 83-039/03X-1 and Supplementary Information Sheet. This LER was submitted on October 13, 1983, as suggested by Regulatory Guide 1.16. This revision is submitted in accordance with our commitment of December 13, 1983.

Should there be any questions, please contact this office.

Sincerely,

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

RMB/feb

Enclosure

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

OFFICIAL COPY

IE22  
1/1