



**Florida  
Power**

CORPORATION  
Crystal River Unit 3  
Docket No. 50-302

September 28, 1990  
3F0990-15

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

Subject: Licensee Event Report (LER) 90-012-01

Dear Sir:

Enclosed is Licensee Event Report (LER) 90-012-01 which is submitted in accordance with 10 CFR 50.73. This supplement is being submitted to correct the abstract which did not reflect the true content of the LER.

Sincerely,

G. L. Boldt  
Vice President  
Nuclear Production

WLR:mag

Enc.

xc: Regional Administrator, Region II  
Senior Resident Inspector

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**LICENSEE EVENT REPORT (LER)**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 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) <b>CRYSTAL RIVER UNIT 3</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 3 1 0 2</b>	PAGE (3) <b>1 OF 0 3</b>
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TITLE (4) **Personnel Error Leads to Incomplete Quarterly Surveillance and Technical Specification Violation**

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 NAME(S)	DOCKET NUMBER(S)
07	09	90	90	012	01	09	28	90	N/A	0 5 0 0 0
									N/A	0 5 0 0 0

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

OPERATING MODE (9) <b>1</b>	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.36(a)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(a)
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.36(a)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)		

LICENSEE CONTACT FOR THIS LER (12)

NAME <b>W. A. STEPHENSON, NUCLEAR SAFETY SUPERVISOR</b>	TELEPHONE NUMBER
	AREA CODE: <b>9 0 4</b>   NUMBER: <b>7 9 5 - 6 4 1 8 6</b>

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On July 9, 1990, while operating at 98% power, Florida Power Corporation discovered the quarterly calibration of the hydrogen channel of the Waste Gas Decay Tank (WGDT) explosive gas monitoring instrumentation had not been performed as required by Technical Specification 4.3.3.10 prior to declaring the system operable on June 2, 1990. The immediate cause of this non-conformance was personnel error. Crystal River Unit 3 technicians were not adequately notified of the need to perform the quarterly surveillance. Additionally, the calibration that was performed was incorrectly communicated to the operating shift as a complete calibration. To prevent recurrence, Surveillance Procedures (SPs), or other tests used to return equipment to service, will be reviewed by the responsible procedure supervisor prior to returning the equipment to operable status.

**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   2	—   0   1	0   2	OF	0   3

TEXT (If more space is required, use additional NRC Form 365A's) (17)

**EVENT DESCRIPTION**

On July 9, 1990 at 1200, while operating at 98% power, Florida Power Corporation (FPC) discovered the quarterly calibration of the hydrogen channel of the Waste Gas Decay Tank (WGDT) explosive gas monitoring instrumentation [WE] had not been performed as required by Technical Specification 4.3.3.10 prior to declaring the system operable on June 2, 1990. The explosive gas monitoring instrumentation includes a hydrogen and an oxygen monitoring channel. The system was incorrectly declared operable when only the oxygen channel calibration was completed.

In December 1989, both channels of the explosive gas monitoring instrumentation were declared inoperable due to leaks in the instrumentation tubing [WE,1BG]. Crystal River Unit 3 was operating at 100% power. FPC initiated the required actions to collect and analyze periodic grab samples which allowed continued plant operation. Because modification related work on the system was planned for the upcoming refueling outage, repairs were delayed until the outage scheduled for March 1990. In the process of completing the modification work on the system, FPC discovered the oxygen channel [WE,MON] of the explosive gas monitoring instrumentation was inoperable when it failed the post modification test. On May 30, 1990, FPC recalibrated the oxygen channel. On June 2, 1990, while in MODE 5 (COLD SHUTDOWN), FPC incorrectly declared both channels of the explosive gas monitoring instrumentation operable believing that a complete calibration of both channels had been performed. On July 3, while in MODE 1 (POWER OPERATION), the regularly scheduled quarterly calibration of both the hydrogen and oxygen channels was satisfactorily completed. On July 9, while reviewing surveillance documentation and closing out outage related items, FPC discovered that the hydrogen channel had not received a quarterly calibration prior to declaring the channel operable. No immediate actions were necessary as the channel had been recently calibrated satisfactorily on July 3.

**CAUSE**

The immediate cause of this non-conformance was personnel error. CR-3 technicians were not adequately notified of the need to perform the quarterly surveillance. Additionally, the calibration that was performed was incorrectly communicated to the operating shift as a complete calibration.

Failing to adequately notify the work supervisor and technicians of the need to perform the quarterly calibration of the entire channel and the miscommunication are cognitive errors. Due to the miscommunication, the utility personnel who were aware of the requirement (the responsible procedure supervisor, the shift supervisor, and the Technical Specification coordinator) incorrectly believed a complete calibration had been done. Furthermore, because the responsible procedure supervisor was informed that some calibration of the explosive gas

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		YEAR 9   0	SEQUENTIAL NUMBER —   0   1   2	REVISION NUMBER —   0   1	0   3	CF 0   3

TEXT (If more space is required, use additional NRC Form 306A's) (17)

monitoring instrumentation was being done, he incorrectly believed the work supervisor was performing a complete calibration and therefore did not notify the work supervisor of the need to perform a complete calibration. These personnel errors were not due to a procedure violation or error. CR-3 procedures specifically allow the operating shift to rely on the responsible procedure supervisor to determine the status of surveillances.

**EVENT ANALYSIS**

The WGDT explosive gas monitoring instrumentation monitors the hydrogen and oxygen concentrations in the WGDTs to assure operators can take actions to avoid a fire or explosion. An analysis of the radiological doses as the result of the release of the entire volume of one WGDT [WE,TK] is discussed in FSAR section 14.2.2.8. The resulting doses are well below the 10CFR100 limits.

Although the quarterly calibration of the hydrogen channel was missed, the subsequent "as found" calibration of the channel on July 3 indicated it was operable; therefore, the operators had reliable indication of the hydrogen and oxygen concentration in the WGDTs. Based on the above, this event did not impact nuclear safety.

**CORRECTIVE ACTION**

Surveillance procedures or other tests used to return equipment to service will be reviewed by the responsible procedure supervisor, prior to returning the equipment to operable status, to assure the required sections of the procedure have been performed and to assure acceptance criteria have been met. Also, the responsible procedure supervisor and shift supervisor will meet to review the results of the surveillance.

**PREVIOUS SIMILAR EVENTS**

Non-conformance reports were reviewed back to 1986. A total of twenty-one previous events involving missed or exceeded surveillance intervals were found. Of these events, twelve of the non-conformances occurred in 1986; five occurred in 1987; three occurred in 1988; one occurred in 1989; and this event is the only event for 1990 to date. Based on this review, it appears the overall trend of these types of non-conformances is improving and FPC's corrective actions have been effective in reducing them. Corrective actions for these previous events were reviewed. These actions would not have prevented this non-conformance.