NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
CRYSTAL RIVER UNIT 3	0 5 0 0 0 3 0 2	1 OF 0 3

TITLE (4)
Incorrect Radiation Monitor Alarm/Trip Setpoint

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)
										N/A	0 5 0 0 0
0 7	2 0	8 4	8 4	–	0 1 6	– 0 0	0 8	1 5	8 4	N/A	0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 9 8	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
	20.405(a)(1)(iv)	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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
W. K. Bandhauer, Nuclear Safety Supervisor	9 0 4 7 9 5 - 6 4 8 6

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)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On July 20, 1984, a Quality Programs Audit determined that the Alarm/Trip Setpoint for the Fuel Storage Pool Area Gaseous Activity Process Monitor (RM-A4) was not in accordance with Technical Specification 3.3.3.1. The RM-A4 Alarm/Trip was set at 500 counts per minute, while Technical Specification 3.3.3.1 requires a setpoint of less than or equal to two times background. Background reading is presently 30-60 counts per minute. The ACTION statement of Technical Specification 3.3.3.1 prohibits all operations involving movement of fuel within or loads over the fuel storage pool when RM-A4 is inoperable. These ACTION requirements were not followed during all fuel movements in the fuel storage pool since January 25, 1979, when the setpoint of 500 counts per minute was established.

This event required no immediate corrective actions because License Amendment 69 (effective July 1, 1984) of the Technical Specifications had deleted all reference to RM-A4 several days prior to the discovery of the event.

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EVENT DESCRIPTION

On July 20, 1984, an audit performed by the Quality Programs Department determined that the Alarm/Trip Setpoint for the Fuel Storage Pool Area Gaseous Activity Process Monitor, RM-A4 (IL), was higher than that allowed by Technical Specification 3.3.3.1. The actual setpoint, per the Radiation Monitor Setpoint Log, is 500 counts per minute (cpm) as documented in Chemistry and Radiation Protection Followup Report (FUR) 79-81 on January 25, 1979. The setpoint is required by Technical Specification 3.3.3.1 to be less than or equal to two times background. Using the highest present reading of 60 cpm and adding the routine statistical correction factor of three times the square root of the background reading yields a maximum present corrected background of 83 cpm, giving a maximum Alarm/Trip Setpoint of 166 cpm. This maximum value is well below the present setting of 500 cpm.

In the event RM-A4 becomes inoperable, Technical Specification 3.3.3.1 requires compliance with the ACTION statement of Technical Specification 3.9.12. These ACTION requirements include, "suspend all operations involving movement of fuel within the storage pool or crane operation with loads over the storage pool". Compliance with these ACTION requirements was not accomplished during all fuel storage pool movements since January 25, 1979, when the present setpoint of 500 cpm became effective. Three refueling outages occurred between July 1979 and July 1984.

Two distinct scenarios are possible in explaining this event:

1) The Alarm/Trip Setpoint calculated on FUR 79-81 in 1979 was correct based on background readings at that time. By calculating backward from the setpoint of 500 cpm and reversing the routine statistical correction factor, this yields a minimum background of approximately 207 cpm. Since no background readings are presently available for the early 1979 time frame, and in consideration of the fact that this background reading is extremely low, this scenario is credible. If this scenario is assumed, then there may NOT have been any Technical Specification violation at that time as the background readings may have been sufficiently high to make the setpoint of 500 cpm actually read less than or equal to two times background.

2) The other possibility is that the Alarm/Trip Setpoint calculation on FUR 79-81 in 1979 was performed by personnel who were unaware of the Technical Specification requirement. In this case, the alarm would simply be set high enough to preclude spurious alarms based on operational experience, which is the routine method for obtaining setpoints for non-Technical Specification radiation monitors.

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

SAFETY CONSIDERATIONS

The safety impact of this event is negligible because any release that would have been permitted by the improper Alarm/Trip Setpoint for RM-A4 would have been stopped by alarm and trip of the Auxiliary and Fuel Handling Building Exhaust Duct Radiation Monitor, RM-A2 (IL). This is the basis for the deletion of RM-A4 Trip/Setpoint in Amendment 69 of the Technical Specification. The only automatic action caused by a trip of RM-A4 is to trip the Auxiliary Building and Fuel Handling Area Supply Fan AHF-10 (VF, VB). This fan is also tripped by a trip of RM-A2, thus accomplishing the same action to prevent release to the environment of any airborne activity from the fuel storage pool. In addition, the requirements of the Final Safety Analysis Report were met for either of the two scenarios noted above in that the setpoint was set at a level based on plant operating conditions in accordance with Section 11.4.2.1.2d.

CORRECTIVE ACTIONS

Because Technical Specification 69, effective July 1, 1984, eliminated all reference to RM-A4 Alarm/Trip Setpoints, no immediate corrective actions were necessary. To preclude future occurrences of failure to recognize Technical Specification violations, Chemistry Procedures will be revised to include a step verifying that applicable radiation monitors are within Technical Specification limits following calibration.

SIMILAR LERS

This is the first reported occurrence of incorrect Radiation Monitor Alarm/Trip Setpoints.

Florida Power
CORPORATION

August 15, 1984
3F0884-12

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Licensee Event Report No. 84-016-00

Dear Sir:

Enclosed is Licensee Event Report (LER) No. 84-016-00 which is submitted in accordance with 10 CFR 50.73. In the August 13, 1984 submittal, page 2 was inadvertently omitted. This submittal corrects that oversight and supercedes the previous submittal.

Should there be any questions, please contact this office.

Sincerely,

G R Westafer

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

RHT:nrk

Enclosure

cc: Mr. James P. O'Reilly
Regional Administrator, Region II
Office of Inspection & Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street N.W., Suite 2900
Atlanta, GA 30323

Note: Attached LER
Ltr Seial # 3F0884-09
Was previously submitted
with omitted Page. Corrected
Cy in Ltr Seial # 3F0884-12

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