

February 17, 1978

PRN-LI-78-48

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
230 Peachtree Street, N. W., Suite 1217
Atlanta, Georgia 30303

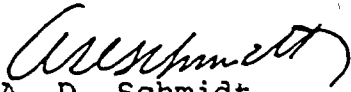
Dear Mr. O'Reilly:

REPORTABLE OCCURRENCE 335-78-7
ST. LUCIE UNIT 1
DATE OF OCCURRENCE: FEBRUARY 3, 1978

TECHNICAL SPECIFICATION 4.3.1.1.3
RTD RESPONSE TIME

The attached Licensee Event Report is being submitted in accordance with Technical Specification 6.9 to provide prompt notification of the subject occurrence.

Very truly yours,


A. D. Schmidt
Vice President
Power Resources

MAS/bab

Attachment

cc: Robert Lowenstein, Esquire
Director, Office of Inspection and Enforcement (40)
Director, Office of Management Information and
Program Control (3)

AO 4
GD

1 6

LICENSEE NAME: 01 F L S L S 1 14
 LICENSE NUMBER: 15 0 0 - 0 0 0 0 0 - 0 0 25
 LICENSE TYPE: 26 4 1 1 1 1 30
 EVENT TYPE: 31 0 1 32

01 CONT 57 58 CATEGORY 59 T REPORT TYPE 60 L REPORT SOURCE 61
 DOCKET NUMBER: 61 0 5 0 - 0 3 3 5 68
 EVENT DATE: 69 0 2 0 3 7 8 74
 REPORT DATE: 75 0 2 1 7 7 8 80

EVENT DESCRIPTION

2 Technical Specification Table 3.3-2(Reactor Protective Instrumentation Response Times) 20
 3 does not include allowance for resistance temperature detector (RTD) response time, 50
 4 thereby preventing full compliance with Technical Specification 4.3.1.1.3 (response time 80
 5 testing). In addition, the RTD response times of selected channels are apparently greater 80
 6 than the 5-second value initially used by the NSSS vendor in the applicable setpoint 80

SYSTEM CODE: 17 I A 9 10
 CAUSE CODE: 11 B
 COMPONENT CODE: 12 I N S T R U 17
 PRIME COMPONENT SUPPLIER: 43 N
 COMPONENT MANUFACTURER: 44 R 3 7 0 47
 VIOLATION: 48 N

CAUSE DESCRIPTION

15 The RTDs are mounted in instrument wells. Apparently, changes in the parameters 20
 19 governing the response of an RTD in an instrument well affect the overall response time. 60
 20 In addition, St. Lucie Unit 1 and other similar plants have had difficulty verifying the 80

1 FACILITY STATUS: 9 E
 % POWER: 10 0 9 4 12
 OTHER STATUS: 13 NA
 METHOD OF DISCOVERY: 44 d 45
 DISCOVERY DESCRIPTION: 46 NA 80

2 FORM OF ACTIVITY RELEASED: 9 Z
 CONTENT OF RELEASE: 10 Z 11
 AMOUNT OF ACTIVITY: 44 NA 45
 LOCATION OF RELEASE: 46 NA 80

PERSONNEL EXPOSURES

3 NUMBER: 9 0 0 0 11
 TYPE: 12 Z
 DESCRIPTION: 13 NA 80

PERSONNEL INJURIES

4 NUMBER: 9 0 0 0 11
 DESCRIPTION: 12 NA 80

PROBABLE CONSEQUENCES

5 NA 80

LOSS OR DAMAGE TO FACILITY

6 TYPE: 9 Z 10
 DESCRIPTION: NA 80

PUBLICITY

7 NA 80

ADDITIONAL FACTORS

8 See page two for continuation of Event Description and Cause Description. 80

9 80

Event Description (continued)

analysis. This is based on measurements made by a consultant in mid-January, 1978. The consultant reported the results on February 3, 1978. Although the measured response times are greater than 5 seconds, they are less than the revised value of 8 seconds contained in a proposed Technical Specification amendment which has been submitted to the NRC (see "Cause Description"). This is the first occurrence of this type at St. Lucie Unit 1. (335-78-7)

Cause Description (continued)

5-second response time assumed in the NSSS setpoint analysis. As a result of the parametric uncertainties and the measurement difficulties, the NSSS vendor had been requested in 1977 to re-evaluate the appropriate setpoints using a response time greater than 5 seconds. In December, 1977 the NSSS vendor responded with an evaluation that supported response times of up to 8 seconds. A proposal to incorporate the 8-second value in Table 3.3-2 was forwarded to the NRC by letter L-78-39 dated February 2, 1978.

All RTDs tested had response times less than 8 seconds, so no further action beyond the Technical Specification change proposal is planned at this time.