

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Joseph M. Farley - Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 4 8				PAGE (3) 1 OF 0 3		
TITLE (4) Nuclear Instrumentation Rate Trips Set Nonconservatively																
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)			
0 9	2 5	8 5	8 5	0 1 5	0 0 1	0 1	4 8	5	J. M. Farley - Unit 2				0 5 0 0 0 3 6 4			
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)													
POWER LEVEL (10)			20.402(b)				20.406(c)				80.73(a)(2)(iv)				73.71(b)	
0 9 9			20.406(a)(1)(i)				80.36(e)(1)				80.73(a)(2)(v)				73.71(c)	
			20.406(a)(1)(ii)				80.36(e)(2)				X 80.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
			20.406(a)(1)(iii)				80.73(a)(2)(i)				80.73(a)(2)(viii)(A)					
			20.406(a)(1)(iv)				80.73(a)(2)(ii)				80.73(a)(2)(viii)(B)					
			20.406(a)(1)(v)				80.73(a)(2)(iii)				80.73(a)(2)(x)					
LICENSEE CONTACT FOR THIS LER (12)																
NAME J. D. Woodard										TELEPHONE NUMBER AREA CODE 2 0 5 8 9 9 - 5 1 5 6						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC						
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)

In June 1985, it was determined that, due to an incorrect interpretation of information supplied by the reactor vendor and the resulting procedural inadequacy, the potential existed for the nuclear power range instrumentation positive and negative rate trips to be set nonconservatively. As a precaution, the procedures for adjusting the rate trips were revised and the settings were made more conservative on 06-19-85. Additionally, the reactor vendor was requested to determine if the settings that existed prior to 06-19-85 were within the Technical Specification tolerance and, further, to determine if these settings were consistent with the licensing basis of the plant.

On 09-25-85, it was determined that the positive and negative rate trip settings which existed prior to 06-19-85 had been outside the Technical Specification tolerance. This single condition caused the rate trips of the four independent nuclear instrumentation channels to be outside the Technical Specification allowable values. Technical Specifications require the rate trips to be set at less than or equal to 5.5% of rated thermal power with a time constant greater than or equal to 2.0 seconds. The actual settings for the power change in two seconds ranged from 7.25 to 7.5% for both units. It was also determined that, even though the rate trips had been set nonconservatively, those settings fell within the original design basis of the plant.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104
EXPIRES 8/31/95

FACILITY NAME (1) Joseph M. Farley - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 4 8 8 5	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		0 1 5	0 0		0 2	OF	0 3

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

In June 1985, it was determined that, due to an incorrect interpretation of information supplied by the reactor vendor and the resulting procedural inadequacy, the potential existed for the nuclear power range instrumentation positive and negative rate trips to be set nonconservatively. The procedures in use at FNP at that time called for inserting a step power change of ten power units on the upper detector while holding the lower detector constant. Information obtained from the reactor vendor indicated that inserting a step power change of approximately five power units on the upper detector would produce setpoints that are conservative with respect to Technical Specification requirements.

As a precaution, the procedures for adjusting the rate trips were revised and the settings were made more conservative on 06-19-85. Additionally, the reactor vendor was requested to determine if the settings that existed prior to 06-19-85 were within the Technical Specification tolerance and, further, to determine if these settings were consistent with the licensing basis of the plant.

On 09-25-85, it was determined that the positive and negative rate trip settings which existed prior to 06-19-85 had been outside the Technical Specification tolerance. This single condition caused the rate trips of the four independent nuclear instrumentation channels to be outside the Technical Specification allowable values. Technical Specifications require the rate trips to be set at less than or equal to 5.5% of rated thermal power with a time constant greater than or equal to 2.0 seconds. The actual settings for the power change in two seconds ranged from 7.25 to 7.5% for both units.

The analysis performed by the reactor vendor for the negative rate trip determined that although the maximum undetected dropped rod worth increased with the incorrect settings, it was still within the range of dropped rod worths considered in the DNB analyses for both units. There are no safety impacts associated with a positive rate trip setpoint of 7.5% power because no accident analysis in the FSAR relies upon the positive rate trip for protection. Therefore, even though the rate trips had been set nonconservatively, those settings fell within the original design basis of the plant.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1) Joseph M. Farley - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 4 8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 5	— 0 1 5	— 0 0 0	3	OF	0 1 3

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

Tests were conducted during the initial startup of both units to demonstrate proper operation of the negative rate trip. For this test, two control rods were dropped simultaneously. Bank C control rods were chosen because calculations indicated that control rods from this group would be the most difficult to detect due to their location and low reactivity worth. These tests were completed successfully. The reactor tripped due to at least two of the four instruments detecting the power change. Therefore, confidence exists that the reactor would have tripped in response to two or more control rods dropping into the core, even with the nonconservative settings of the rate trip circuits.

This event was caused by procedural inadequacy. The procedures in effect prior to 06-19-85 called for nonconservative settings on the rate trips. This occurred because personnel misinterpreted information obtained from the reactor vendor. The procedures have been revised.

This event is deemed to have no effect on plant nuclear safety. Tests have shown that a reactor trip will occur if a multiple rod drop occurs, even if the dropped rods are of low worth or in a position which makes them difficult for the nuclear instrumentation to detect. Further, analyses conducted by the reactor vendor indicate that even with the nonconservative rate trip settings those settings fell within the design basis of the plant.

Mailing Address
Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 783-6090

R. P. McDonald
Senior Vice President
Flintridge Building



October 14, 1985

Docket No. 50-348

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

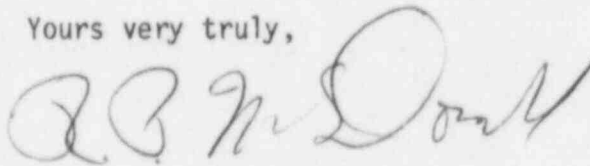
Joseph M. Farley Nuclear Plant - Unit 1
Licensee Event Report No. LER 85-015-00

Dear Sir:

Joseph M. Farley Nuclear Plant, Unit 1, Licensee Event Report No. LER 85-015-00 is being forwarded in accordance with 10CFR50.73 to provide 30 day written notification of the occurrence.

If you have any questions, please advise.

Yours very truly,



R. P. McDonald

RPM/JAR:ddb-D30
Enclosure

cc: IE, Region II

IE22
1/1