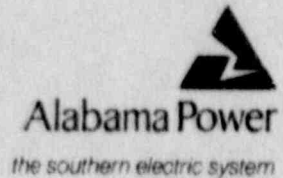


Alabama Power Company  
40 Inverness Center Parkway  
Post Office Box 1295  
Birmingham, Alabama 35201  
Telephone 205 868-5581

W. G. Hairston, III  
Senior Vice President  
Nuclear Operations



April 12, 1990

10CFR50.73

Docket No. 50-348

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

Gentlemen:

Joseph M. Farley Nuclear Plant - Unit 1  
Licensee Event Report No. LER 90-003-00

Joseph M. Farley Nuclear Plant Unit 1 Licensee Event Report No. LER 90-003-00  
is being submitted in accordance with 10CFR50.73.

If you have any questions, please advise.

Respectfully submitted,

  
W. G. Hairston, III

WGH,III/JAR:mgd 16.05

Enclosure

cc: Mr. S. D. Ebnetter  
Mr. G. F. Maxwell

9004200369 900412  
PDR ADOCK 05000348  
S PDC

IF22  
11

## 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-630), 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)

Joseph M. Farley - Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 3 4 8 1 OF 0 4

PAGE (3)

TITLE (4)

Personnel Error Results In Incorrect Liquid Effluent Monitor Setpoints

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	3	15	90	090	003	00	04	12	J. M. Farley-Unit 2	0 5 0 0 0 3 6 4
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)										
OPERATING MODE (9)		1		20.402(b)		20.406(e)		60.73(a)(2)(iv)		73.71(b)
POWER LEVEL (10)		1.00		20.406(a)(1)(i)		60.36(e)(1)		60.73(a)(2)(iv)		73.71(c)
				20.406(a)(1)(ii)		60.36(e)(2)		60.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)
				20.406(a)(1)(iii)		60.73(a)(2)(ii)		60.73(a)(2)(viii)(A)		
				20.406(a)(1)(iv)		60.73(a)(2)(ii)		60.73(a)(2)(viii)(B)		
				20.423(a)(1)(v)		60.73(a)(2)(iii)		60.73(a)(2)(k)		

LICENSEE CONTACT FOR THIS LER (12)

NAME

D. N. Morey, General Manager-Nuclear Plant

TELEPHONE NUMBER

AREA CODE

2 0 5 8 9 9 1 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)

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

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

On 3-15-90, it was recognized that the methodology used to calculate the setpoints for liquid effluent radioactivity monitors was incorrect. The calculated setpoints could have allowed the liquid effluent limits of 10CFR20 to be exceeded. This setpoint methodology had been used to calculate liquid effluent monitor setpoints since commercial operation began in 1977. However, adherence with 10CFR20 limits was assured by calculating the required dilution flow based on isotopic analysis and administratively ensuring that the actual dilution flow exceeded the required dilution flow.

This event was caused by cognitive personnel error in that an incorrect equation was established in the Offsite Dose Calculation Manual (ODCM) which resulted in an error in the calculation of setpoints for liquid effluent monitors.

The ODCM has been revised to correct the error and FNP-0-CCP-212 (Liquid Waste Release Program) has been revised to be consistent with the corrected ODCM equations. For additional assurance that 10CFR20 limits were not exceeded, a historical evaluation of liquid effluent releases was performed.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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-830), 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)  Parley Nuclear Plant - Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 3 4 8	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 0	— 0 0 3	— 0 0	0	2 OF 0 4

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

Plant and System Identification

Westinghouse - Pressurized Water Reactor

Energy Industry Identification System codes are identified in the text as [XX].

Summary of Event

On 3-15-90, it was recognized that the methodology used to calculate the setpoints for liquid effluent radioactivity monitors [WD] was incorrect. The calculated setpoints could have allowed the liquid effluent limits of 10CFR20 to be exceeded. This setpoint methodology had been used to calculate liquid effluent monitor setpoints since commercial operation began in 1977. However, adherence with 10CFR20 limits was assured by calculating the required dilution flow based on isotopic analysis and administratively ensuring that the actual dilution flow exceeded the required dilution flow.

Description of Event

At approximately 1600 on 3-14-90, FNP personnel were informed by the corporate staff that the equation used to calculate the setpoints for the liquid effluent monitors was suspect. This was discovered during an independent review of FNP's Offsite Dose Calculation Manual (ODCM). The applicable procedure (FNP-O-CCP-212, Liquid Waste Release Program) was revised using a conservative equation to replace the suspect equation.

On 3-15-90, it was concluded that the setpoint equation was non-conservative. The error resulted in setpoints being calculated which in some instances could have allowed the limits of 10CFR20 for liquid effluents to be exceeded. However, the ODCM also required the calculation of the required dilution flow for each release. This dilution flow was based on an isotopic analysis of the effluents. Administrative controls ensured that the actual dilution flow exceeded the required dilution flow. This process assured adherence with 10CFR20 limits. The liquid effluent radioactivity monitors (RE-18 and RE-23B) were declared inoperable on both units and the applicable Technical Specification action statement requirements were implemented.

On 3-16-90, information showing the correct form of the setpoint equation was obtained. The ODCM was revised accordingly. Appropriate changes were made to FNP-O-CCP-212 to implement the guidance of the ODCM. With the availability of the corrected setpoint methodology, RE-18 for waste monitor tank releases and RE-23B for steam generator blowdown were declared operable on both units.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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)  Farley Nuclear Plant - Unit 1	DOCKET NUMBER (2)  0500034890	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		90	003	00	03	OF 04

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

Cause of Event

This event was caused by cognitive personnel error in that an incorrect equation was established in the ODCM which resulted in an error in the calculation of setpoints for liquid effluent monitors.

Reportability Analysis and Safety Assessment

This event is reportable because the ODCM resulted in setpoints for effluent monitors being set such that the requirements of Technical Specification 3.3.3.10 were not met. The monitors might not have isolated the discharge line prior to exceeding the 10CFR20 limits. However, adherence with 10CFR20 limits was assured by calculating the required dilution flow based on isotopic analysis and administratively ensuring that the actual dilution flow exceeded the required minimum flow.

For additional assurance, an assessment was performed on liquid effluent releases which occurred from 1977 until the time the ODCM was revised on 3-16-90. The following conclusions were drawn on an evaluation of a sample of release permits:

- The limits of 10CFR20 were not exceeded.
- Technical Specification 3.11.1.1 was not violated.
- The combined highest quarterly average concentration of the liquid effluent stream was 0.89 percent of the 10CFR20 limits.

There was no effect on the health and safety of the public.

Corrective Action

1. The ODCM was revised to correct the error.
2. FNP-O-CCP-212 was revised to be consistent with the corrected ODCM equations.
3. For additional assurance that 10CFR20 limits were not exceeded, a historical evaluation of liquid effluent releases was performed.
4. An independent review of the ODCM is ongoing with an estimated completion date of June 1990.

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)  Farley Nuclear Plant - Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 3 4 8	LER NUMBER (6)			PAGE (3)	
		YEAR 9 0	SEQUENTIAL NUMBER 0 0 3	REVISION NUMBER 0 0	0 4 OF 0 4	

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

Additional Information

Both units were operating at approximately 100 percent power on 3-15-90.

This event would not have been more severe if it had occurred under different operating conditions because all releases were based on dilution calculations and administratively controlled.

No components failed during this event.

No similar LERs have been submitted by FNP.