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Energy to Serve Your WorldSM

June 30, 2003

Docket No.: 50-348

NL-03-1397

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant – Unit 1
Licensee Event Report 2003-003-00
Unplanned Auxiliary Feedwater Actuation upon Trip of Steam Generator Feed Pump

Ladies and Gentlemen:

Joseph M. Farley Nuclear Plant – Licensee Event Report (LER) No. 2003-003-00 is being submitted in accordance with 10 CFR 50.73(a)(2)(iv)(A).

There are no NRC commitments in this letter. If you have any questions, please advise.

Sincerely,

J. B. Beasley, Jr.

JBB/WAS/sdl

Enclosure: Licensee Event Report 2003-003-00

cc: Southern Nuclear Operating Company
Mr. J. D. Woodard, Executive Vice President
Mr. D. E. Grissette, General Manager – Plant Farley
Document Services RTYPE: CFA04.054; LC# 13802

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. F. Rinaldi, NRR Project Manager – Farley
Mr. T. P. Johnson, Senior Resident Inspector – Farley

IE22

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)

FACILITY NAME (1)

Joseph M. Farley Nuclear Plant - Unit 1

DOCKET NUMBER (2)

05000348

PAGE (3)

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TITLE (4) Unplanned Auxiliary Feedwater Actuation upon Trip of Steam Generator Feed Pump

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
05	02	2003	2003	- 003	- 00	06	30	2003	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		2	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)							
POWER LEVEL (10)		3	20.2201(b)			20.2203(a)(3)(ii)			50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
			20.2201(d)			20.2203(a)(4)			50.73(a)(2)(iii)	50.73(a)(2)(x)
			20.2203(a)(1)			50.36(c)(1)(i)(A)		X	50.73(a)(2)(iv)(A)	73.71(a)(4)
			20.2203(a)(2)(i)			50.36(c)(1)(ii)(A)			50.73(a)(2)(v)(A)	73.71(a)(5)
			20.2203(a)(2)(ii)			50.36(c)(2)			50.73(a)(2)(v)(B)	OTHER
			20.2203(a)(2)(iii)			50.46(a)(3)(ii)			50.73(a)(2)(v)(C)	Specify in Abstract below or in
			20.2203(a)(2)(iv)			50.73(a)(2)(i)(A)			50.73(a)(2)(v)(D)	NRC Form 366A
			20.2203(a)(2)(v)			50.73(a)(2)(i)(B)			50.73(a)(2)(vii)	
			20.2203(a)(2)(vi)			50.73(a)(2)(i)(C)			50.73(a)(2)(viii)(A)	
			20.2203(a)(3)(i)			50.73(a)(2)(ii)(A)			50.73(a)(2)(viii)(B)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
D. E. Grissette, General Manager Nuclear Plant	334-899-5156

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

CAUSE	SYSTEM	COMPONENT	MANU- FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU- FACTURER	REPORTABLE TO EPIX
B	JK	TAC	A123	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 2, 2003 at 0605 with the reactor at 3.8 percent power during post refueling startup, an unplanned emergency safeguards actuation of the Auxiliary Feedwater (AFW) System occurred. An unexpected 1B Steam Generator Feed Pump (SGFP) speed increase led to a manual trip of the 1B SGFP. The 1A SGFP was out of service at this time. Trip of the only operating SGFP caused both Motor Driven Auxiliary Feedwater (MDAFW) Pumps to start. Reactor power was lowered from 3.8 percent to 2 percent and the reactor was stabilized on Auxiliary Feedwater.

Following extensive troubleshooting, the cause of the event on May 2 could not be determined. The sensing circuit was recalibrated and returned to service. Subsequently, on May 9, 2003, with the reactor at 100 percent power, an unexpected SGFP speed increase occurred again. The SGFP was removed from service and a replacement speed sensing circuit was installed in the SGFP speed control cabinet. No safeguards equipment actuation occurred in conjunction with this subsequent failure.

The cause of both events is believed to be an intermittent failure of the speed sensing circuit. On the initial failure, the speed sensing circuit was recalibrated. On the subsequent failure on May 9, the speed circuit was replaced.

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

Westinghouse -- Pressurized Water Reactor
Energy Industry Identification Codes are identified in the text as [XX]

Description of Event

On May 2, 2003 at 0605 with the reactor at 3.8 percent power during post refueling startup, an unplanned emergency safeguards actuation of the Auxiliary Feedwater (AFW) System [BA] occurred. An unexpected 1B Steam Generator Feed Pump (SGFP)[SJ] speed increase led to a manual trip of the 1B SGFP. The 1A SGFP was out of service at this time. Trip of the only operating SGFP caused both Motor Driven Auxiliary Feedwater (MDAFW) Pumps to start. Reactor power was lowered from 3.8 percent to 2 percent and the reactor was stabilized on Auxiliary Feedwater.

Thorough troubleshooting of all components and electrical connections in the speed sensing and control circuits identified no problem. The speed sensing circuit was recalibrated. The SGFP speed sensing and control circuits [JK] were instrumented and a test run of the pump conducted. During this test run, the SGFP speed sensing and control circuits performed as expected. Based upon the test run with no problems, the SGFP was returned to service.

Subsequently, on May 9, 2003, with the reactor at 100 percent power, an unexpected SGFP speed increase occurred again. Power was reduced to approximately 60% to allow for removing the SGFP from service. The high pressure and low pressure governor valves were observed to be fully open while operations was in the process of isolating steam to the SGFP. Troubleshooting determined the cause of this condition to be a failed speed sensing circuit "Tach Pak." A replacement "Tach Pak" was installed in the SGFP speed control cabinet.

Due to its proximity to other SGFP control components for the operating 1A SGFP, the faulted component was electrically disconnected, but was not physically removed from the cabinet. Therefore, the cause of the failed component is not known at this time. The failed component will be investigated at the next outage of sufficient duration.

Cause of Event

The cause of this event was intermittent equipment failure in that the output of the speed sensing circuit "Tach Pak" for the 1B SGFP control failed low, causing the unexpected speed increase which led to the operator trip of the SGFP.

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

Safety Assessment

In neither the May 2 reportable event nor the May 9 subsequent equipment failure did the SGFP exceed its design overspeed trip setpoint of 5775 rpm. In both events, operator action was manually initiated to remove the 1B SGFP from service as a conservative response to the loss of speed control.

All safeguards equipment functioned as designed. Therefore, the health and safety of the public were unaffected by this event.

Corrective Action

On May 9, the speed sensing circuit "Tach Pak" was replaced.

Additional Information

Due to its proximity to other SGFP control components, the faulted component was not physically removed from the cabinet during the repair on May 9. The failed component will be removed at the next outage of sufficient duration and the cause of failure investigated by December 17, 2004.

The calibration and maintenance history of the speed sensing circuits on the SGFPs on both units will be reviewed to determine the acceptability of current Periodic Maintenance (PM) practices. Reliability of new and refurbished Tach Paks from available sources will be evaluated. Based on these reviews and investigations, changes to the design, procurement and/or PM programs for this equipment will be made as appropriate. These actions will be complete by December 12, 2003.

The following LER has been submitted in the past two years involving SGFP control issues:

LER 2002-004-00 Unit 1, Manual Reactor Trip on Loss of Both Steam Generator Feed Pumps