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)
Grand Gulf Nuclear Station - Unit 1	0 5 0 0 0 4 1 6	1 OF 0 2

TITLE (4)

Inoperable Pipe Supports on Standby Service Water Piping

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	0 8	8 4	8 4	0 4 2	0 0	1 0	2 9	8 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	2
POWER LEVEL (10)	0 0 4

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check one or more of the following)* (11)

	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)
	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)	X	OTHER *(Specify in Abstract below and in Text, NRC Form 366A)*
	20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		Voluntary Report
	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
Ronald W. Byrd/Licensing Engineer	6 0 1 — 4 3 7 - 2 1 4 9

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	
B	B S	H									

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)

During hanger inspections on the Standby Service Water System, 12 pipe supports were found damaged on piping to and from the Fuel Pool Cooling heat exchangers. An evaluation revealed that a water hammer transient could occur on this high, vertical length of pipe. On a LOP/LOCA signal, the SSW pump discharge valve opens prior to the pump start allowing a slight drain down with void formations in the higher elevation piping. Thus, loads higher than the original design values may occur on pump starts in this section of pipe. The configuration of the "A" loop is such that this condition would not be experienced.

IE22
1/

NRC Form 366A (9-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Grand Gulf Nuclear Station - Unit 1	0 5 0 0 0 4 1 6	8 4	— 0 4 2	— 0 0	0 2 OF 0 2

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

On September 8 and 10, 1984, a walkdown of the Standby Service Water System (SSW) piping revealed 12 damaged pipe supports on the "B" loop piping to and from the Fuel Pool Cooling heat exchangers. The pipe support damage included bent or binding strut paddles, and dislodged swivel bushings.

The pipe supports were reworked by September 14, 1984. Afterwards a simulated LOP/LOCA test was performed on the SSW system and two supports which were previously reworked were found damaged again. An evaluation revealed that a water hammer transient may have been experienced on this section of piping.

The 12 damaged supports were on vertical piping below valves P42F200B and P42F201B, the supply and return lines from the Fuel Pool Cooling heat exchangers. Both valves are at the 189 ft. elevation. On a LOP/LOCA signal, the SSW pump discharge valves open prior to the pump start which allows for a drain down of the higher elevated piping to and from the heat exchanger creating voids. As a result, loadings higher than the original design values may be experienced when the pump starts.

The piping configuration of the "A" loop is such that this condition would not be experienced.

Valves F200B and F201B have remained closed since fuel load due to the restriction of Condition 2.C(28) of the GGNS Operating License. The vertical piping has now been temporarily isolated by installing blind flanges at the 159 ft. elevation. The control circuit for both "A" and "B" SSW pumps has also been modified to prevent opening the discharge and return valves prior to the pump start on a LOP/LOCA signal.

There were no significant safety consequences as a result of this event. The Fuel Pool Cooling System normally cools the pools by transferring spent fuel decay heat to the Component Cooling Water System in the heat exchangers. Operation of the heat exchangers using Standby Service Water as the backup cooling medium is currently prohibited by the Operating License. No other portion of the system was affected.

MISSISSIPPI POWER & LIGHT COMPANY
Helping Build Mississippi
P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

October 29, 1984

NUCLEAR LICENSING & SAFETY DEPARTMENT

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

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-13
File: 0260/L-835.0
Voluntary Report - Inoperable Pipe Supports on Standby Service Water Piping
LER 84-042-0
AECM-84/0503

Attached is Licensee Event Report (LER) 84-042-0 which is a final report.

Yours truly,

L. F. Dale
Director

EBS/SHH:lm
Attachment

cc: Mr. J. B. Richard (w/a)
Mr. R. B. McGehee (w/o)
Mr. N. S. Reynolds (w/o)
Mr. G. B. Taylor (w/o)

Mr. Richard C. DeYoung, Director (w/a)
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. J. P. O'Reilly, Regional Administrator (w/a)
U.S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 2900
Atlanta, Georgia 30323

IE22
1/1