Entergy

Entergy Operations, Inc.
P.O. Box 756
Port Gibson, MS 39150
Tel 601 437 6408
Fax 601 437 2795

Joseph J. Hagan
Vice President
Operations
Grand Gulf Nuclear Station

July, 21, 1997

U.S. Nuclear Regulatory Commission
Mail Station P1-37
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Both Divisions Of Relief/Low-Low Set Logic Inoperable
LER 97-02-00

GNRO-97/00071

Gentlemen:

Attached is Licensee Event Report (LER) 97-02-00 which is a final report.

Yours truly,

JJH/KAG
attachment:
cc: (See Next Page)

IE22

cc: Ms. J. L. Dixon-Herrity, GGNS Senior Resident (w/a)
Mr. L. J. Smith (Wise Carter) (w/a)
Mr. N. S. Reynolds (w/a)
Mr. H. L. Thomas (w/o)

Mr. E. W. Merschoff (w/a)
Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

Mr. J. N. Donohew, Project Manager (w/2)
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Stop 13H3
Washington, D.C. 20555

NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Grand Gulf Nuclear Station, Unit 1	05000-416	1 of 4

TITLE (4)
Both Divisions Of Relief/Low-Low Set Logic Inoperable

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 NAME	DOCKET NUMBER
									N/A	05000
06	19	97	97	002	00	07	17	97	FACILITY NAME: N/A	DOCKET NUMBER: 05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)	100		20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
			20.2203(a)(2)(i)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
			20.405(a)(1)(ii)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
			20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER
			20.2203(a)(2)(iii)		50.36(c)(1)	X	50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Ken Godfrey / Licensing Specialist	601-437-6164

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

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 15 single-spaced typewritten lines) (16)

On June 19, 1997, the Safety Relief Valve (SRV) Test Switch for Division I Relief/Low-Low Set logic was taken to the "Test" position for Instrument and Control (I&C) surveillance testing. On the same day, at 2014, during performance of Technical Specifications required rounds, the SRV Test Switch for Division II Relief/Low-Low Set logic was placed in the "Test" position. Consequently, both divisions of SRV Relief/Low-Low Set logic were inoperable at the same time. The error was immediately recognized and the Division II Relief/Low-Low Set logic "Test" switch was returned to the "Normal" position.

Taking the Division II Relief/Low-Low Set logic test switch to "Test" while the Division I Relief/Low-Low Set logic test switch was already in the "Test" position placed the system in a condition that would have prevented it from fulfilling its safety function. Therefore, this event is reportable pursuant 10 CFR 50.73 (a)(2)(v)(D).

The total time that both divisions of Relief/Low-Low Set logic were inoperable was approximately 10 seconds. The safety function and the Automatic Depressurization System (ADS) function of the SRVs were not affected by this event. During this short duration, no events occurred requiring initiation of Relief/Low-Low Set logic. Therefore, the health and safety of the general public were not compromised as a result of this event.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Grand Gulf Nuclear Station, Unit 1	05000-416	97	002	00	2 OF 4

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

A. Reportable Occurrence

On June 19, 1997, the Safety Relief Valve (SRV) Test Switch for Division I Relief/Low-Low Set logic [JG] was taken to the "Test" position for I&C surveillance testing. On the same day, at 2014, during performance of Technical Specifications required rounds, the SRV Test Switch for Division II Relief/Low-Low Set logic was placed in the "Test" position. Consequently, since both divisions of SRV Relief/Low-Low Set logic were inoperable at the same time. This event satisfied the 4 hour Non-Emergency notification requirements of 10 CFR 50.72 (b)(2)(iii)(D). Subsequently, notification was made to the NRC at 2219. This condition is also reportable as an License Event Report (LER) pursuant 10 CFR 50.73 (a)(2)(v)(D).

B. Initial Conditions

At the time of the event, the plant was in OPERATIONAL CONDITION 1 with reactor power at 100 percent. Reactor coolant temperature was 530 degrees Fahrenheit. Reactor Pressure Vessel level was 36 inches.

C. Description of Occurrence

On June 19, 1997, the SRV Test Switch for Division I Relief/Low-Low Set logic was taken to the "Test" position for I&C surveillance testing. At 2014 on the same day during performance of Technical Specifications required rounds, 06-OP-1000-D-0001, the SRV Test Switch for Div. II Relief/Low-Low Set was placed in the "Test" position. Consequently, both divisions of SRV Relief/Low-Low Set logic were inoperable at the same.

During a walkdown of the Division I panel for the Relief/Low-Low Set logic, the Control Room operator failed to see the annunciator illuminated indicating that the Division I Relief/Low-Low Set logic handswitch was in the "Test" position. He also failed to check the Division I Relief/Low-Low Set logic handswitch position. He then proceeded to the Division II panel and placed the Relief/Low-Low Set logic for Division II in the "Test" position. Upon placing the Division II logic in "Test", a second operator in the Control Room responded to the annunciation, and recognized that the Division I Relief/Low-Low Set logic was also in the "Test" position. He immediately informed the first operator of the situation, who then returned the test switch for Division II Relief/Low-Low Set logic back to the "Normal" position. Both divisions of Relief/Low-Low Set logic were in the "Test" position for approximately 10 seconds.

D. Apparent Cause

1. Personnel Work Practices - Error Detection Practices

The operator manipulated the desired switch for the section of the surveillance he was performing; however, this was inappropriate due to the fact that other division's switch was already in "Test". The

"Daily Operating Logs", 06-OP-1000-D-0001, states "Only place one division in test at a time." Whenever the SRV Group Test switches are placed in "Test" an annunciator alarms on 1H13P870 to alert the operator of the status of the test switches. The annunciator for Division I SRV Group Test Switch being in "Test" was sealed in. Therefore, there was adequate information to the operator regarding the fact that one division was already in "Test" before he placed the other division in "Test".

2. Personnel Work Practices - Document Use Practices

The surveillance procedure the operator was performing, 06-OP-1000-D-0001, "Daily Operating Logs", contains instruction to "place the following switches to test" per SOI 04-1-01-B21-1. Also, as previously stated, the surveillance includes a statement to place only one division in "Test" at a time. The B21 SOI, as a prerequisite to placing either SRV Group Test Switch to "Test", has the operator observe that the annunciator associated with the other division SRV auto function is not in alarm. Also the SOI requires that the Shift Supervisor be notified prior to the operator manipulating the test switches.

E. Corrective Actions

Immediate:

1. The Division II SRV Group Test Switch was immediately returned to "Normal", thereby restoring the safety function of the system.

2. The operating crew on shift performed an event review in accordance with Principle of Operations A010.

3. The Shift Superintendent made clear the requirement that all illuminated Control Room annunciators be discussed during turnover and during the shift briefing.

Long Term:

1. Operations will revise 06-OP-1000-D-0001 to include a sign-off that the operator has verified the opposite division SRV Group Test Switch is not in "Test" prior to placing either SRV Group Test Switch to "Test".

2. Operations will route the Root Cause Analysis for this event to all operating crews as Required Reading.

F. Safety Assessment

The function of the relief logic is to prevent overpressurization of the nuclear steam supply system. This system is set at pressure values below the safety setting of the valves. This error did not affect the safety

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Grand Gulf Nuclear Station, Unit 1	05000-416	97	002	00	4 OF 4

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

function of the SRV's. The function of the Low-Low Set logic is to mitigate the effects of postulated pressure loads on the containment by preventing multiple actuations in rapid succession of the SRVs subsequent to their initial actuation. Upon an SRV actuation, the Low-Low Set logic assigns preset opening and reclosing setpoints to selected SRVs. These setpoints are selected to override the normal relief setpoints such that the selected SRVs will remain open longer, thus releasing more steam (energy) to the suppression pool. Hence, more energy (steam) is required for repressurization and subsequent SRV openings. The Relief/Low-Low Set logic increases the time limit between (or prevents) subsequent actuations to limit SRV subsequent actuation to one SRV so that containment loads will be reduced.

The Low-Low Set logic was inoperable for approximately 10 seconds. During this time, no actuations of any safety related equipment occurred. Therefore, the safety significance of this event was minimal. The health and safety of the general public were not compromised as a result of this event.

G. Additional Information

Energy Industry Identification System (EIIS) codes are identified in the text within brackets [ ].