

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) RIVER BEND STATION, UNIT 1										DOCKET NUMBER (2) 0500004581 OF 03										PAGE 1																																							
TITLE (4) Reactor Scram on Loss of Condensate Flow																																																											
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 (9)																						
01			01			86			86			001			000			01			31			86													050000																						
01			01			86			86			001			000			01			31			86													050000																						
OPERATING MODE (10) 1										THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § 1.70 (Check one or more of the following) (11)																																																	
POWER LEVEL (10) 0119										20.000000										20.000000										Y										00.750000										72.7100									
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LICENSEE CONTACT FOR THIS LER (12)																																																											
NAME Dan Williamson																				TELEPHONE NUMBER AREA CODE 504635-6094																																							
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)																				X NO										EXPECTED SUBMISSION DATE (15)																													
																														MONTH DAY YEAR																													

ABSTRACT (Limit to 1400 words - 1. Abstracts may be prepared by the licensee or the NRC staff) (16)

On 01/01/86 at 0354 the unit scrambled from 19 percent power on low reactor water level (level 3). The low level scram was a result of isolations on both low pressure feedwater heater strings coincident with a failure of the low pressure feedwater heater bypass valve to open. At 0356 Reactor Core Isolation Cooling was started and used to restore level prior to reaching the initiation level for High Pressure Core Spray. An investigation into the event was conducted. It was determined that the probable cause for the isolations was flashing in the level transmitter pots causing high level spikes. It is believed that the failure of the bypass valve to open was a result of thermal binding causing the motor operator circuit breaker to trip on overload. There were no safety consequences or implications to the public as a result of this event.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED FOR RELEASE BY NRC

EXPIRES 12/31/85

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (3)

PAGE (3)

RIVER BEND STATION

0 5 0 0 0 4 5 8

8 6 - 0 0 1 - 0 0 0 2 OF 0 3

TEXT / IF MORE SPACE IS REQUIRED, USE CONTINUAL NRC Form 308A (1/77)

On 01/01/86 at 0354 the unit scrambled from 19 percent thermal power on low level (level 3) due to a loss of all feedwater flow. Apparently a spurious high - high level in the 'A' 5th point low pressure feedwater heater tripped causing condensate flow to the 'A' string to isolate. The 'B' low pressure heater string had previously isolated and went undetected. It is believed to have been caused by a similar spurious signal which may have caused the 'A' heater string to isolate. The low pressure heater string bypass valve failed to automatically open on either 'A' or 'B' heater string isolation. Its breaker was found tripped. This resulted in a complete isolation of condensate flow to the feed pumps and a loss of feedwater flow to the vessel. The feedwater pumps are designed to trip on low suction pressure; however, feedwater pump 'A' failed to trip and ran for approximately five minutes before condensate flow was restored. At 0356 the Reactor Core Isolation Cooling system was started and used to restore level prior to reaching the initiation level for High Pressure Core Spray.

Upon thorough investigation of all associated feedwater heater train instrumentation and logic, with no apparent problems discovered, it was determined the probable cause to be flashing in the level transmitter pots causing high level spikes. Failure of the low pressure heater string bypass valve to open was also investigated. It is possible that during system heat up the bypass valve may have thermally bound and caused the motor overload.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 1505-0046

EXPIRES 12-95

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (3)

PAGE (3)

RIVER BEND STATION

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8 6

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0

3

TEXT (If more space is required, use additional NRC Form 308A (1) (17))

Corrective action has been taken to ensure condensate pots for level transmitters are filled. These level transmitters have been instrumented with a strip recorder to monitor for similar occurrences. The low pressure heater bypass valve motor overload has been reset from its lower current setting to its upper setpoint. Additionally, General Operating Procedure GOP-0001 "Plant Startup to Low Power Alarm Point" has been revised to require the bypass valve to be left in the open position until approximately 15 percent power to prevent valve binding during system heatup. Finally, human factors design changes have been initiated via Modification Requests 86-0015, 0016 and 0017 to highlight heater level alarms and trip indicators for the heater bypass valve.

There were no safety consequences or implications to the public because the unit was placed in a safe shutdown condition and water level was quickly restored via the Reactor Core Isolation Cooling system. Furthermore, redundant Emergency Core Cooling Systems were available at all times as an additional source of coolant if necessary.



GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775
AREA CODE 504 635-6094 346-8651

January 31, 1986
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File Nos. G9.5, G9.25.1.3

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

Dear Sir:

River Bend Station - Unit 1
Docket No. 50-458

Please find enclosed Licensee Event Report No. 86-001 for River Bend Station - Unit 1. This report is submitted pursuant to 10CFR50.73.

Sincerely,

J. E. Booker

J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

TMP JEB BEH
JEB/TFP/DRG/BEH/amg

cc: U. S. Nuclear Regulatory Commission
611 Ryan Plaza, Suite 1000
Arlington, TX 76011

INPO Records Center
1100 Circle 75 Parkway
Atlanta, GA 30339-3064

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