GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775

AREA CODE 504 635-6094 346-8651

March 31, 1992
RBG- 36692
File No. G9.5, G9.33.1

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

Gentlemen:

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

By letter dated July 20, 1990 (RBG-33277), Gulf States Utilities Company (GSU) provided our response to NRC Bulletin 90-01, "Loss of Fill Oil in Transmitters Manufactured by Rosemount". This response stated in part that preventative maintenance procedures were being revised to include additional calibration check points for non-STP transmitters to provide the data necessary to fully assess the loss of fill-oil concern. Our response further stated that during these evaluations, any transmitters identified as having a failure mode associated with the loss of fill-oil problem would be identified to the NRC.

During routine activities, a trip unit which actuates on low reactor plant component cooling water pressure was found to have been tripped for no apparent reason on September 22, 1991. Investigation by maintenance personnel discovered that the transmitter (Serial No. 404038) was out of calibration and could not properly be calibrated. This subject transmitter was at that time replaced with a new transmitter from stock. The defective transmitter was then returned to Rosemount for failure analysis on October 1, 1992. Rosemount's attached report concluded that the transmitter in question failed due to loss of fill-oil.

IE37
1/1

Any subsequent Rosemount transmitter failures attributed to the loss of fill-oil concern will be identified to the NRC as before. If you have any questions or comments, please contact Mr. Leif L. Dietrich of my staff at (504) 381-4866.

Sincerely,

W. H. Odell
Manager - Oversight
River Bend Nuclear Group

Attachment
RAE/JFM/LLD/WJS

cc: U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

NRC Resident Inspector
P.O. Box 1051
St. Francisville, LA 70775

Mr. D. V. Pickett
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

ROSEMOUNT
Measurement
Control
Analytical
Valves

Rosemount Inc
12001 Technology Drive
Eden Prairie MN 55344 USA
Tel (612) 941-5560
Telex 4310012
Fax (612) 828-3088

February 21, 1992

Field Return Analysis

Customer: Gulf States

Model Number: 1153GB7

Serial Number: 404038

House Order Number: 958117
(RMA Number)

Reason for Return: Output fell from 100 to 59 psi

Preliminary Evaluation

The unit was too slow to calibrate upon receipt. The oil level was measured and found to be low on the high pressure side of the sensor. The module was sent to the Evaluation Lab for further analysis.

Final Evaluation

The module was cut open and the sensor removed. Oil residue was detected inside the module housing. Welds and fill tube seals were inspected and found to be good. The sensor was then static pressurized to 4500 psi with evidence of oil leakage observed on the high pressure side of the sensor between the glass to metal interface.

Summary

The cause for failure is leakage of oil from the sensor by way of the glass to metal interface.

Rosemount has implemented several process improvements to reduce the risk of this type of leak. We have also implemented a second high pressure aging step after oil fill to verify the glass to metal seals.

Craig Diederichs
Nuclear Engineering

Gerald Anderson
Nuclear Quality Assurance

RMA#958137

GULF STATES UTILITIES COMPANY

THIS IS NOT A PURCHASE ORDER

Render one invoice in duplicate to address stated on P.O. showing P.O. Number, MWA Number & Release Number when applicable

QC	QA	Q
YES X	YES X	CLASS
NO ☐	NO ☐	I

MATERIAL and WORK AUTHORIZATION

in accordance with the terms and conditions of our Purchase Order No. 90-C-70675

Rel. No. ____

SHIP VIA
☐ SUPPLIER
☐ WH DRIVER
☐ ORIGINATOR

MWA No. 30607

REV. NO ____

Date 10-1 19 91

To: ROSEMOUNT INC.
12001 TECHNOLOGY DRIVE
EDEN PRAIRIE, MN 55344
ATTN NEIL LIEN / T. CHRISTIAN

Date Item or Service Required ____

SHIP TO
GULF STATES UTILITIES COMPANY
RIVER BEND STATION
HWY. 61, 2 MILES SOUTH OF
ST. FRANCISVILLE, LA 70775
PLEASE INCLUDE PACKING LIST WITH SHIPMENT

MWA ITEM NO	P.O. LINE ITEM	QTY U/M	DESCRIPTION	UNIT COST	TOTAL COST
1		EA	ROSEMOUNT TRANSMITTER,		
			MODEL NO. 1153GB7, S/N: 404038		
			(REF. MWOK 169711, ICCP#PTIB)		
			(RMA# 958137-ROSEMOUNT)		
			NOTE: TRANSMITTER RESPONDED SLOWLY,		
			AND WOULD NOT CALIBRATE ABOVE 12.03mA		
			(NOTE: TRANSMITTER IS RETURNED TO		
			WAREHOUSE VIA SR# 53652) GSW		

CONFIRMING TO EB. ON ____

TOTAL AMOUNT

DO NOT DUPLICATE.

____ DATE ____
DEPT. HEAD AUTHORIZATION

____ DATE ____
TECHNICAL STAFF AUTHORIZATION

GULF STATES UTILITIES COMPANY

____ DATE ____
QUALITY ASSURANCE AUTHORIZATION
(For QA Program Applicable Only)

By ____ Date ____
NUCLEAR PROCUREMENT

White - Supplier
Blue - Procurement
Green - Receiving
Canary - Accounting
Pink - Quality Assurance
Goldenrod - Originator

MWA# 30607
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ROSEMOUNT® Measurement Control Analytical Valves

Rosemount Inc.
12001 Technology Drive
Eden Prairie MN 55344 U.S.A.
Tel (612) 941-5560
Telex 4310012
Fax (612) 828-3088

PRESSURE TRANSMITTER FAILURE SURVEY

UTILITY: Gulf States Utilities PLANT: River Bend

CONTACT PERSON: Ekon Borazanci TELEPHONE: (504) 381-4205

MODEL NUMBER: 1153607 SERIAL NUMBER: 404038

DATE OF RETURN TO ROSEMOUNT: _____ TAG NUMBER: 1CCP*PT1B

APPLICATION (e.g. Main Steamline, Pressurizer level): HEADER PRESSURE

PROCESS FLUID: WATER

CALIBRATION: 4 mA = 0 PSIG
20 mA = 100 PSIG

TRANSMITTER POWER SUPPLY VOLTAGE: 24 VDC

WAS THIS A REDUNDANT MEASUREMENT: Yes X No ____ How Many 4

DATE INSTALLED: 12-20-83 DATE REMOVED FROM SERVICE: 9-24-91
(If different from Failure Date)

FAILURE DATE: 9-22-91 TIME SENSING PRESSURE: _____

Describe in exact detail the symptoms associated with the failure mode.

The reading on master trip unit for the transmitter failed down to 59 psig with no reason. The other three channel remained at 100 psig, as the actual room panel readings

QUESTIONS:

1) What are the typical ambient conditions associated with the above application?

Ave. Ambient Temp: 75 °F Vibration: Negligible Hz

Ambient Temp range 70-90 °F

Relative Humidity: 20-95 %