



GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775
AREA CODE 504 635-294 640-851

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.

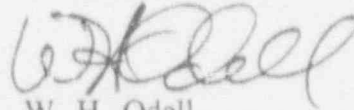
During routine activities, a trip unit which actuates on low reactor plant component cooling water pressure was found to have been tripped for no apparent reason on September 22, 1991. Investigation by maintenance personnel discovered that the transmitter (Serial No. 404038) was out of calibration and 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.

9204070311 920331
PDR ADDCK 0500C45B
Q PDR

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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



ME/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

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.

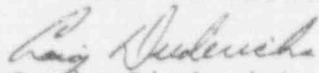
Final Evaluation

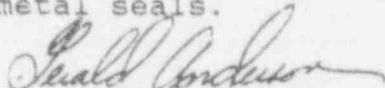
The module was cut open and the sensor removed. Oil residue was detected inside the module housing. Welds and fill tube seals were inspected and found to be good. The sensor was then static pressurized to 4500 psi with evidence of oil leakage observed on the high pressure side of the sensor between the 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 CLASS
YES X YES X I
NO NO

Page 1 of 7

MATERIAL and WORK AUTHORIZATION

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

FORM 273-88-01 (12/85) Rev. 3

SHIP VIA

Ref No

SUPPLIER
WH DRIVER
ORIGINATOR

MWA No. 30607

REV NO

Date 10-1-91

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

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

Date Item or Service Required

Table with columns: MWA ITEM NO, P.O. LINE ITEM, QTY U/M, DESCRIPTION, UNIT COST, TOTAL COST. Row 1: 1 EA ROSEMOUNT TRANSMITTER, MODEL NO. 1153GB7, S/N: 404038 (REF. MWOK 169711, ICCP*PTIB) (RMA# 958137-ROSEMOUNT). Includes handwritten notes about slow response and return to warehouse.

CONFIRMING TO EB ON

TOTAL AMOUNT

DO NOT DUPLICATE.

DEPT HEAD AUTHORIZATION DATE

TECHNICAL STAFF AUTHORIZATION DATE

GULF STATES UTILITIES COMPANY

QUALITY ASSURANCE AUTHORIZATION For QA Program Applicable Only DATE By NUCLEAR PROCUREMENT DATE

ROSEMOUNT*

Measurement
Control
Analytical
Valves

MWA# 30607
page 2 of 7

Rosemount Inc.
12001 Technology Drive
Eagan Prairie MN 55344 U.S.A
Tel (612) 841-5560
Telex 4310012
Fax (612) 828-3088

PRESSURE TRANSMITTER FAILURE SURVEY

UTILITY: Gulf States Utilities PLANT: River Bend
 CONTACT PERSON: EKAN BORAZANCI TELEPHONE: (504) 381-4205
 MODEL NUMBER: 1153607 SERIAL NUMBER: 404038
 DATE OF RETURN TO ROSEMOUNT: _____ TAG NUMBER: ICCP*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 this transmitter felt down to 59 psig with no reason. The other three channels remained at 100 psig in the control 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 %