

Agricultural Processor Saves \$7300 in Regulatory Compliance Costs with Meter Verification Diagnostic

RESULTS

- Improved ease of regulatory compliance
- Lowered maintenance costs
- Reduced spare inventory
- Decreased process downtime

APPLICATION

Effluent flow

CUSTOMER

Major North American agricultural processor

CHALLENGE

As part of the state Environmental Protection Agency (EPA) requirements, this large agricultural processor is required to accurately account for the amount of waste water from their processing plant that is returned to the environment. The waste water is treated, pH balanced, and brought to the correct temperature before it is discharged into a nearby river. An 8-in. magnetic flowmeter located on the water discharge line measures and totalizes the amount of water returning to the river. In order to confirm that the meter is measuring accurately, the EPA requires that the meter calibration be verified on an annual basis. To satisfy the EPA requirements, this company would have to send the meter to a flow lab each year to ensure that the calibration had not changed. This process requires a shutdown so that an instrument technician could remove the flowmeter from the line and ship it to a certified flow lab for verification, adding additional cost to the process. Lastly, a spare meter would be required to replace the existing meter so that the process could continue to operate while the original meter was being verified, resulting in increased inventory costs to the operation.

SOLUTION

In order to reduce the costs associated with meter verification, it was recommended that this customer use Rosemount 8700 Magnetic Flowmeters with 8714i in situ meter verification diagnostic capabilities. The 8714i meter verification diagnostic performed a full meter verification of the sensor and transmitter. The diagnostic takes a



By using meter verification diagnostics, the customer eliminated flow lab costs, maintenance costs, and shipping costs.



The Rosemount 8732 flowmeter

ROSEMOUNT

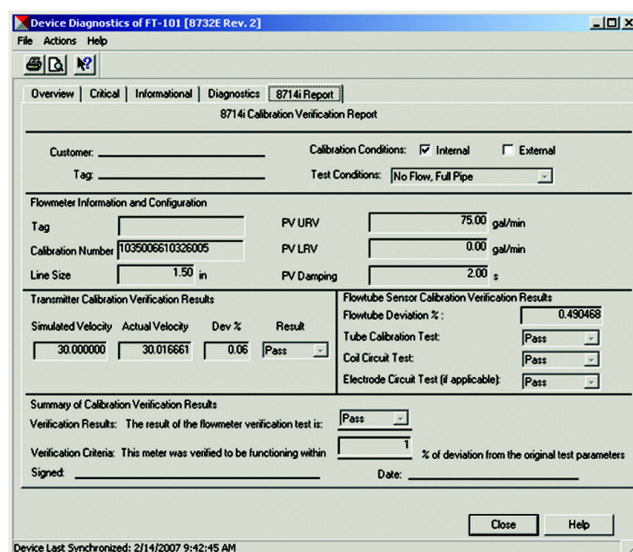
For more information:
www.rosemount.com


EMERSON
 Process Management

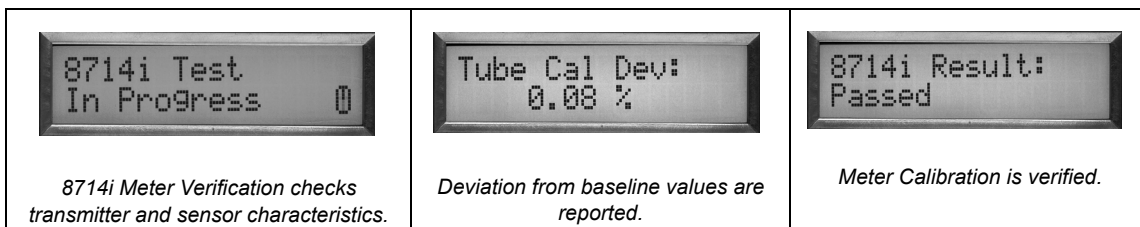
baseline signature of the sensor when it is first installed and stores the initial reference values in the non-volatile memory of the transmitter.

Running the 8714i meter verification diagnostic compares the original signature valves to the current measurements taken during the diagnostic test. Since the values were within the user set parameters, the flowmeter was certified to be within specification, verifying the performance of the flowmeter. The 8714i meter verification diagnostic was completed in minutes providing verification that the flowmeter was still within specified accuracy, without removing the flowmeter and shutting the process down. By eliminating the need to send the flowmeter out for verification, the customer eliminated the cost of a spare meter, flow lab costs, maintenance costs, and shipping costs resulting in a \$7,300 savings.

A meter verification report can be printed from AMS® Suite: Intelligent Device Manager, or the calibration values can be taken from the local operator interface or field communicator and written into a report by hand. This report can then be submitted to any regulatory agency as certification by the manufacturer that the flowmeter calibration has not changed, satisfying EPA requirements.



8714i meter verification report in AMS Device Manager.



RESOURCES

Emerson Process Management Food & Beverage Industry

<http://www2.emersonprocess.com/en-us/plantweb/customerproven/pages/FoodBeverage.aspx>

Rosemount 8700 Magnetic Flowmeter Transmitters

<http://www2.emersonprocess.com/en-US/brands/rosemount/Flow/Magnetic-Flowmeters/E-Series-Transmitters/Pages/index.aspx>

The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, expressed or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which can be found at www.rosemount.com/terms_of_sale. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

The Emerson logo is a trade mark and service mark of Emerson Electric Co. Rosemount and the Rosemount logotype are registered trademarks of Rosemount Inc. PlantWeb is a registered trademark of one of the Emerson Process Management group of companies. All other marks are the property of their respective owners.

**Emerson Process Management
Rosemount Inc.**
8200 Market Boulevard
Chanhassen, MN 55317 USA
www.rosemount.com
Tel (USA) +1 800 522 6277
Tel (International) +1 (303) 527 5200
Fax +1 (303) 530 8459

Emerson Process Management
Blegistrasse 23
P.O. Box 1046
CH 6341 Baar
Switzerland
Tel +41 (0) 41 768 6111
Fax +41 (0) 41 768 6300

Emerson FZE
P.O. Box 17033
Jebel Ali Free Zone
Dubai UAE
Tel +971 4 811 8100
Fax +971 4 886 5465

**Emerson Process Management Asia
Pacific Private Limited**
1 Pandan Crescent
Singapore 128461
T (65) 6777 8211
F (65) 6777 0947
Enquiries@AP.EmersonProcess.com

**Emerson Process Management Latin America
Multipark Office Center**
Multipark Office Center
Turrubares Building, 3rd & 4th floor
Guachipelin de Escazu, Costa Rica
T+(506) 2505-6962
international.mmcam@emersonprocess.com

ROSEMOUNT

For more information:
www.rosemount.com

EMERSON
Process Management