

# Local Water Authority Improves Wetwell Level Pump Control with Ultrasonic Transmitter

## RESULTS

- Stable readings achieved over the foamy surface
- Remote level measurement readings obtained



## APPLICATION

Wetwell level pump control at a major water treatment works

## CUSTOMER

Local water authority

## CHALLENGE

At the inlet to a major water treatment works is a 40ft (12m) deep wet well. Three pumps are used in Duty-Assist mode to empty the well as directed by the level measurement system. The level usually varies between 6 to 12 feet, but can rise and flood the well under exceptionally heavy storm conditions. On the edge of an industrial estate, the well also accepts industrial waste which can cause the added problem of foaming.

The customer needs to control the three pumps to empty the well. The liquid level is usually some 25 to 35 feet away from the transmitter, so reliable liquid level detection is required. Pump control is sequenced by a stand-alone controller.

## SOLUTION

A Rosemount system comprising an 3107 ultrasonic level transmitter and 3490 control unit were supplied.

The transmitter was positioned over an area of liquid where the inlet flow tended to keep the foam within the target area to a minimum.

The sophisticated echo recognition software easily deals with the difficult surface conditions in the well and continues control functions if the echo should be lost through excessive foaming, until the echo is recovered.

The 3490 control unit provides power for the 3107 transmitter and is used to control the three pumps in duty-assist mode with auto-sequencing. Local readout of level in the well and pump status is given on the clear three line display.

*The Rosemount 3107 overcomes the problems of surface foaming and the echo recognition software deals easily with the difficult surface conditions.*



A Rosemount 3107 mounted above a wetwell.

## WATER & WASTEWATER

The Emerson logo is a trademark and service mark of Emerson Electric Co.  
Standard Terms and Conditions of Sale can be found at [www.rosemount.com/terms\\_of\\_sale](http://www.rosemount.com/terms_of_sale)  
Rosemount and the Rosemount logotype are registered trademarks of Rosemount Inc.  
PlantWeb is a registered trademark of the Emerson Process Management group of companies.  
All other marks are the property of their respective owners  
We reserve the right to modify or improve the designs or specifications of product and services at any time without notice.

**Emerson Process Management  
Rosemount Inc.**  
8200 Market Boulevard  
Chanhassen, MN 55317 USA  
T (U.S.) 1-800-999-9307  
T (International) (952) 906 8888  
F (952) 949 7001  
[www.rosemount.com](http://www.rosemount.com)

**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 Process Management  
Asia Pacific Pte Ltd**  
1 Pandan Crescent  
Singapore 128461  
Tel +65 6777 8211  
Fax +65 6777 0947

**Emerson FZE**  
P.O. Box 17033  
Jebel Ali Free Zone  
Dubai, UAE  
Tel +971 4 883 5235  
Fax +971 4 883 5312

**ROSEMOUNT®**

For more information:  
[www.rosemount.com](http://www.rosemount.com)

00830-0800-4840, Rev AA

  
**EMERSON™**  
Process Management