

Hengyang Petrochemical uses Emerson Wireless Technology for Overfill Prevention

RESULTS

- Reduced risk of environmental incident
- Compliance to industry recommendations
- Increased personnel safety
- Significantly reduced installation costs



APPLICATION

Tank overfill prevention for various petrochemicals

CUSTOMER

Hengyang Petrochemical, China

CHALLENGE

Hengyang Petrochemical supplies tank storage to the petrochemical industries. The company has a number of tank farms situated on the banks of the Yangtze river for storing various chemicals. Each tank uses radar for a continuous level measurement.

However, a recent industry standard, part of which applies to level monitoring equipment, recommends the use of an independent overfill prevention sensor for tank storage applications. Hengyang Petrochemical was already concerned about the risk of overfill and possible damage to the environment and were committed to complying with this recommendation. They had no overfill prevention devices on the tanks and wanted to add the additional safety measure but also minimize the cost where possible.

Hengyang Petrochemical was very happy with Emerson's non-contacting radars which were already installed for continuous level measurement on a number of their tanks, so they approached Emerson for a solution.

SOLUTION

A total solution for all the tank farm level needs was discussed; this included the benefits of changing to wireless technology. Hengyang Petrochemical engineers were taken to a neighboring chemical site where other wireless Emerson devices were installed. The Hengyang engineers were impressed with the technology and decided that wireless technology on their tank farms was the best solution.

Hengyang Petrochemical added an extra level of safety to their tanks without the cost of additional cabling.



Rosemount 2160 Wireless Vibrating Fork Level Switch is mounted on the side of the fixed roof storage tank

Rosemount 2160 Wireless Vibrating Fork Level Switches were installed to provide overfill prevention. These had the advantage of providing remote diagnostics and also, with no cabling required, they minimized installation costs. Additionally, Hengyang Petrochemical saw the potential of changing to wireless technology and this was a simple way for them to evaluate, learn, and keep up with advancements in the instrumentation field.

Hengyang installed 37 Rosemount 2160 *WirelessHART*® Vibrating Fork Level Switches to provide high level alarms throughout the site. The data was collected by a Rosemount 1420 Gateway which interfaced to their PLC via Modbus®.

The company was very pleased with the result and are now considering installing additional Rosemount 2160s onto newly built tank farms, alongside Emerson's Rosemount 3308 Wireless Guided Wave Radars.

RESOURCES

Rosemount 2160 Series

<http://www2.emersonprocess.com/en-us/brands/rosemount/level/2100-series-level-switches/2160-level-switches/pages/index.aspx>

Rosemount 3308 Series

<http://www2.emersonprocess.com/en-us/brands/rosemount/level/guided-wave-radar/3308a/pages/index.aspx>

Emerson Process Management Chemical Industry

<http://www2.emersonprocess.com/EN-US/INDUSTRIES/CHEMICAL/Pages/index.aspx>

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ROSEMOUNT®

The Rosemount 2160 switches had the advantage of providing remote diagnostics and also, with no cabling required, they minimized installation costs



Side-mounted Rosemount 2160 Wireless Vibrating Fork Level Switch


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