Temperature monitoring on a chimney

Region: South America
Industry: Refinery
Products: YTMX580 (Multi-Input Temperature Transmitter)
YFGW510 (Field Wireless Access Point)
YFGW410 (Field Wireless Management Station)

Requirements

The client wanted to monitor the temperature on a chimney.

Exhaust air is exposed to the heat on the way traveling from the inlet to the outlet in the chimney. Then constituent of the air transform to harmless elements. It is important to keep the temperature in the chimney as designed.

Benefits

- Keeping exhaust air to be harmless by controlling temperature in the chimney.
- No need for wiring.

Challenge

The number of measurement points in the chimney were about 30 and the location of measurement points were 30 meters above the ground.

The chimney was located about 300 meters away from central control room.

Solution

The client chose wireless multiplexer to monitor the temperature in the chimney.

Four YTMX580s were deployed to cover 30 measurement points

Yokogawa plant-wide field wireless system was selected for its flexibility.

Equipment List

YTMX580 (Multi-Input Temperature Transmitter) x 4
YFGW510 (Field Wireless Access Point) x 1
YFGW410 (Field Wireless Management Station) x 1

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Conclusion

The client deployed only four YTMX580 along the chimney to cover 30 measurement points.
YTMX580 eight channel temperature transmitter enabled this cost effective solution.

Keeping exhaust air to be harmless reduced environmental burden.
Also they did not need to lay cables between the chimney and central control room. Consequently they could save the cost of laying cables and construction time.

Our customer is planning to deploy additional wireless applications to their plant taking full advantage of Yokogawa's plant-wide field wireless infrastructure.

YTMX580 Multi-Input Temperature Transmitter

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