

Case Study: Hydrogen Sulfide Detection in Steel Production



Industry
STEEL



VANGUARD WirelessHART
FIXED POINT GAS DETECTOR



CHALLENGE:

Customer operates a coke manufacturing facility. The coke produced in the plant is transported to a steel mill. The coke manufacturing process results in numerous hazardous by-products such as toxic hydrogen sulfide (H₂S). H₂S needs to be monitored for personnel protection due to its lethal effect even in minute concentrations. Adding new gas measurement points in an existing facility can be inconvenient and very costly. Such costs includes obtaining 'hot' work permits, running conduits for wires across various elevations and can amount to about \$10,000 per device.

SOLUTION:

Wireless gas detectors like the Vanguard can augment existing gas detection coverage with minimal financial and labor outlay. The Vanguard can be plugged-and-played anywhere in an existing WirelessHART mesh and perform its role as a first line of defense for H₂S monitoring. The Vanguard provided a cost effective additional layer of personnel protection against toxic H₂S. Devices can be easily deployed in locations known to emit H₂S and also redeployed readily if needed. Vanguard was interoperable with other WirelessHART® devices, all of which was managed through an Emerson gateway.



Augmented existing wired gas
detection for increased coverage



Leveraged existing WiHART
network



Fast deployment with limited
financial and labor output