

FRONTLINE SAFETY CASE STUDY



HYDROGEN SULPHIDE & PARTICULATE MONITORING

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WHAT WAS THE HAZARD?

Exposure to toxic hydrogen sulphide (H₂S) gas in confined spaces. H₂S is a notorious asphyxiant with pronounced respiratory and neurological effects, even in minimal concentrations. Also, they found elevated airborne particulate levels during certain work periods, emphasising PM 2.5.

PROBLEM IN MORE DETAIL

The site had multiple confined spaces where H₂S was suspected to accumulate due to industrial processes. Even trace amounts of H₂S are hazardous to workers, particularly in confined settings where gas accumulates and becomes concentrated. The site's operations generated significant dust, with a particular concern around the finer PM 2.5 particles. PM 2.5 particles can remain airborne for longer periods and can carry other harmful substances, making their detection and control critical.

AT A GLANCE

Challenges

- Rapid fluctuations in concentrations
- Ensuring all workers remain compliant consistently

Benefits

- Enhanced safety with real-time detection
- Immediate data reducing potential downtimes
- Comprehensive monitoring

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WHICH SOLUTION AND WHY?

BW RigRat: A portable area gas monitor which offers a range of gas detection options, including H₂S. It provides continuous monitoring even in the most challenging environments.

BW Solo: Worn by each worker, this single-gas detector offers maintenance-free operation, ensuring safety against H₂S exposure. Both solutions by BW Technologies, supplied by Frontline Safety, were chosen for their durability, accuracy, and proven track record in confined space monitoring.

TSI DustTrak Handheld Monitor: This device accurately measures PM 2.5 and other particulates. The handheld design allows for ease of use across various site locations. The SI DustTrak was chosen for its specificity, portability, and ability to deliver real-time results, enabling immediate response actions.