

# Keeping Oil and Gas Rigs Free of Toxic and Chemical Gases

## A SafEye in your safety

Oil rigs require large amounts of electricity and fuel to run their machinery. These platforms also deal with many toxic and highly combustible chemicals and gases like  $H_2S$  and  $NH_3$ , which increase the risk of exposure to dangerous levels that can be lethal. Moreover, crude oil and refined products are stored in tanks at pipeline origination points while awaiting shipment, compounding the dangers even more.

In this combustible and chemical-rich environment, a single spark can start a fire if exposed to fuel. Many documented fires began during oil drilling offshore when a large pocket of gas is discovered. As the gas rises, it can cause a blowout, which is one of the main causes of explosions and fire in oil and gas rigs. At the same time, the production of nontoxic gases in high concentrations can deplete oxygen causing hazardous conditions for personnel.

## Challenges

The following are some of the main hazards in oil and gas rigs:

- Emissions of Hydrogen Sulfide ( $H_2S$ ) and Carbon Monoxide (CO), which are extremely toxic
- Dangerous accumulations of hydrocarbons

## Solutions

Spectrex's innovative detectors monitor and detect flames, toxic gases, and combustible gases, functioning optimally under challenging environmental conditions, including extreme temperatures and harsh winds.



**40/40 series flame detectors** - field-proven, reliable detectors that ensure the most comprehensive protection against hydrocarbon-based fuel and gas fires, gas and vapor leaks, and metal and inorganic protection.



**Quasar 900** - open-path detection system that provides innovative continuous IR technology monitoring for combustible hydrocarbon gases at very low concentrations, ensuring reliable and accurate protection.



**SafEye Quasar 950 open-path  $H_2S$  and  $NH_3$  gas detectors** - open-path toxic gas detectors for hydrogen sulfide, which is pervasive in oil and gas rigs. The detectors provide extremely reliable detection in all weather conditions.

Spectrex's detectors also enable to decrease device costs by purchasing fewer open-path detectors for a large coverage area. This provides a substantial amount of equipment savings and reduces electrical wiring time and costs.

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- Ignitions of gas concentrations that cause fires

Continuous monitoring and detection of emissions while their concentration is low is imperative for protecting against explosions and hazardous health conditions.