SEARCHLINE EXCEL™ EDGE
UNMATCHED PERIMETER MONITORING

APPLICATION BRIEF

The purpose of this application note is to discuss fence line or perimeter gas monitoring, which creates an invisible layer of detection around a site that faces the risk of flammable gas leaks from within or outside. Safety and environmental managers need to know if a flammable gas leak originates from their site as an egress gas leak or from a neighboring site as an ingress gas leak.

WHAT IS PERIMETER MONITORING?

The terms "perimeter" and "fence line" monitoring are often used interchangeably. Both refer to creating lines of detection to form a monitored area. If a site with flammable gas leak risks borders other sites or a community, perimeter monitoring is used to address "good neighbor" responsibilities. Or conversely, to identify if a gas cloud is entering the site and take appropriate action. In either case, the perimeter/fence line monitoring system will alert to the presence of the specified flammable hydrocarbon gases enabling facilities to take a measured and rapid response and assisting facilities with safety and environmental compliance.

Hydrocarbon gases like natural gas can put site workers and the surrounding area and its residents and the environment at risk. Continuously monitoring for harmful gases is critical for safety and environmental due diligence, especially when many production sites can be located close to residential areas. Commonly these types of sites cluster in an area, thereby raising local environmental concerns that pollutants may cross site boundaries.

Many regions have put regulations in place to monitor such emissions. Fence line/perimeter monitoring effectively help facilities address these concerns.

SEARCHLINE EXCEL™ EDGE

An open path gas detector (OPGD), or line of site gas detector, detects a gas cloud in a line between a cooperative transmitter/receiver pair. In the case of Searchline Excel™ Edge with its advanced electro-optics design, the distance covered by each system is up to 330m (1,072 feet).

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OPGD are often installed to monitor for gas presence over long distances. They are an excellent choice for perimeter and cross-section monitoring around storage tanks, production platforms, loading docks, processing sites like refineries and especially for fence line monitoring.

OPGD respond reliably and rapidly and can operate in harsh conditions. Due to the longer range delivered by the Searchline Excel Edge, fewer instruments can monitor larger areas. The Searchline Excel Edge Open Path Flammable Gas Detector uses Non-Dispersive Infrared (NDIR) absorption in near/wide band to detect the presence of a wide range of common hydrocarbon gases.

By quickly and reliably detecting a flammable gas cloud at a site perimeter in addition to wind direction data, a site operations manager can quickly determine whether the gas cloud is ingress or egress and respond to an event.

Robotic monitoring systems are often used to patrol a site perimeter, but an OPGD system can deliver 24/7 coverage and is low maintenance and visibly shows environmental diligence at a site perimeter. Further, logs can be kept showing long term environmental compliance.

SECURE YOUR PERIMETER

RELATED LEGISLATION

USA

- EPA
- California Local Air District: BAAQMD (Bay Area Air Quality Management District) Regulation 12, Rule 15
- California Local Air District: SCAQMD (South Coast Air Quality Management District) Rule 1180
- California Local Air District: SJVAPCD: (San Joaquin Valley Air Pollution Control District) Rule 4460
- CARB (California Air Resources Board) Rule 617

Europe

- 2030 Climate Target Plan — Climate Action
  - Climate neutral by 2050

INDUSTRIES

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For more information

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