

SafEye Quasar 950/960

H₂S and Ammonia Open Path Gas Detectors

Manual Supplement – SafEye 950/960

Please note that since the attached manual for the SafEye 950/960 was released, the following changes have been made

The following sections have been corrected as follows:

3.2 Applications

The Quasar 950/960 SafEye system can be used to monitor toxic gas concentration in various applications, such as:

- Petrochemical, pharmaceutical, and other chemical storage and production areas
- Toxic chemical storage sites and hazardous waste disposal areas
- Detection of H₂S in desulfurization processes at refineries, oil platforms, pipelines, refueling stations, and fuel storage facilities
- Transportation depots and shipping warehouses of solvents (aromatic and polymers origin), degreasing and cleaning solvents
- Styrene monomer, polymers, and plastic industries
- Ammonia production facilities, storage, and transportation
- Air conditioning, refrigeration, and agriculture application areas for ammonia and derivatives
- Semiconductor industry, in which ammonia concentration monitoring is required

3.3.4 Detected Gases

The following toxic gases and vapors are detected by the UV SafEye models according to their unique spectral absorption in the UV solar blind range:

- **SafEye 960: Hydrogen Sulfide (H₂S):** A flammable, poisonous gas with a characteristic smell of rotten eggs. It is perceptible in air at concentrations of 0.001–0.1ppm, with a sweetish taste, and a TLV-TWA of 10ppm.

H₂S is heavier than air and very dangerous to humans, causing collapse, coma, or death from respiratory failure within a few seconds of inhalation.

Early detection of H₂S at concentrations of up to 10ppm is essential to prevent its toxic influence.



8200 Market Blvd, Chanhassen, MN 55317, USA

Phone: +1 (973) 239 8398

Website: www.spectrex.net Email: spectrex.csc.rmtna@emerson.com

SafEye Quasar 950/960

H₂S and Ammonia Open Path Gas Detectors

In the UV band, H₂S has a characteristically strong absorption in the solar blind range of 189–270nm, which enables its fast and reliable detection at low concentrations.

- **SafEye 960: Ammonia (NH₃):** A flammable and toxic gas that is highly irritant, colorless, and with a pungent odor. The lower limit of human perception is 17ppm. Ammonia's TLV-TWA is 25ppm.

The early detection of NH₃ at concentrations of up to 25ppm is essential in order to prevent its toxic effects, such as respiratory tract paralysis. In the UV band, NH₃ gas has a typically strong absorption in the solar blind range of 189–210nm that enables its fast and reliable detection at low concentrations.



8200 Market Blvd, Chanhassen, MN 55317, USA

Phone: +1 (973) 239 8398

Website: www.spectrex.net Email: spectrex.csc.rmtna@emerson.com