

USA PRO Shoreline Technology LLC

GASEOUS VEHICLE SAFETY - 2010 GAS SAFETY IS CONSTANTLY EVOLVING

SAFETY REVIEW TESTING DOCUMENT- 2010

Codes and standards often lag behind rapidly evolving industrial vehicle applications. It is estimated that a large portion of gaseous fueled vehicles with onboard gas detection or who utilize driver/passengers for odorant detection would be challenged with basic safety and/or validation standards for gas detection. prior to an explosion or fire: : 20-30% trace and 50-60% LEL significant.

TESTING PROCEDURES: Use of butane lighter, alcohol, propane, or any heavy gases does not provide necessary multi-level gas detection validation. It should be made perfect clear that you cannot depend solely on suppliers' recommendations for validation as they may not supersede common sense or safety documents: NFPA, CAL CHP Title 13. You and your staff have too much to lose through an ill-considered decision, relying on others' advice, complacency or utilization of driver or passengers as gas detectors.

With the expansion of gaseous powered vehicles in 2010 recognition of gas detection as a necessary safety measure should be applied to fuels such as: CNG, LNG, Propane, Hydrogen and Hythane. These gaseous fuels necessitate onboard gas detection for industrial vehicle applications; unless **you are firmly convinced your drivers and passengers are able to detect leaks, sound an alarm prior to a catastrophic event.** If you expect to depend on the human olfactory response—drivers or passengers—you should **test daily** for evidence of a hay fever sufferer, common cold, use of multiple medicines, or numerous conditions which reduce human ability to smell an odorant. Added to this list are age (too young or old), a smoker, someone with little or no training, or a person who has not been tested for a response at 20-30% trace or 50-60% LEL significant. Dependence on the driver/passengers to act as human gas detectors is trial lawyers dream come true! We have never found adequate proof that odorants and/or dependence on humans for early-warning safety to be effective measures preventing related catastrophic events.

Committed to Safety: If you're committed to safety, guesswork won't work. If your chosen safety tool is reliance on human detection, you are in a no-win situation. No one signs up to be a gas detection device. Can we expect drivers thirty feet away or passengers to be safety devices replacing gas detection. .

Proper vehicle safety and compliance. LNG- CNG – Propane – Hydrogen – Hythane

- 1.0 Incorporate gas detection or train/test your drivers daily: 20-30% - 50-60% LEL
- 2.0 Validate multiple gas protection levels at least three times per year. Use certified gas
- 3.0 Commercial and vehicles used as transportation of students, handicapped or shuttle passengers should be equipped with gas detection.
- 4.0 Do not consider fire suppression a replacement for gas detection; determine the potential source of the fire before it becomes a tragedy. Putting out the fire does not stop a gas leak – fire may increase the sources of ignition/hazard.
- 5.0 Regulations often do not keep up with industrial safety demands. Some component manufacturers/dealers remain unaware of the safety demands.
- 6.0 Driver must be able to easily see warning lights/hear audible alarms prior to entering vehicle—with doors closed - windows up. . Recommend 80+ db and large LED light's
- 7.0 Cylinders within enclosed cabinets can vent. Venting can be trapped gas

Contact: USAPRO1@Verizon.net for free testing and vehicle validation guidelines.

Safety Never Takes a Holiday

“Gas detection/fire suppression system validation facilitates predictable safety”