

MSA Gas Detection

Monitoring Petroleum Loading in Terminal Bays



Situation Over 1,800 tank car and truck terminals to load and unload petroleum products for customer delivery are located in North America. Each terminal consists of 2 to 10 bays to accommodate trucks and tank cars. The majority of these petroleum products are processed for use as heating oil, gasoline, jet fuel, propane, butane, and cooking oils. Railroad tank cars normally deliver these petroleum products into storage facilities beside terminals, although sometimes barges unload at waterfront docks with unloading facilities.



Truck-loading bays allow trucks to load their products for transfer to gasoline filling stations, homes, office buildings, etc. These facilities are located in every refinery, fuel storage terminal, and gasoline storage terminal.

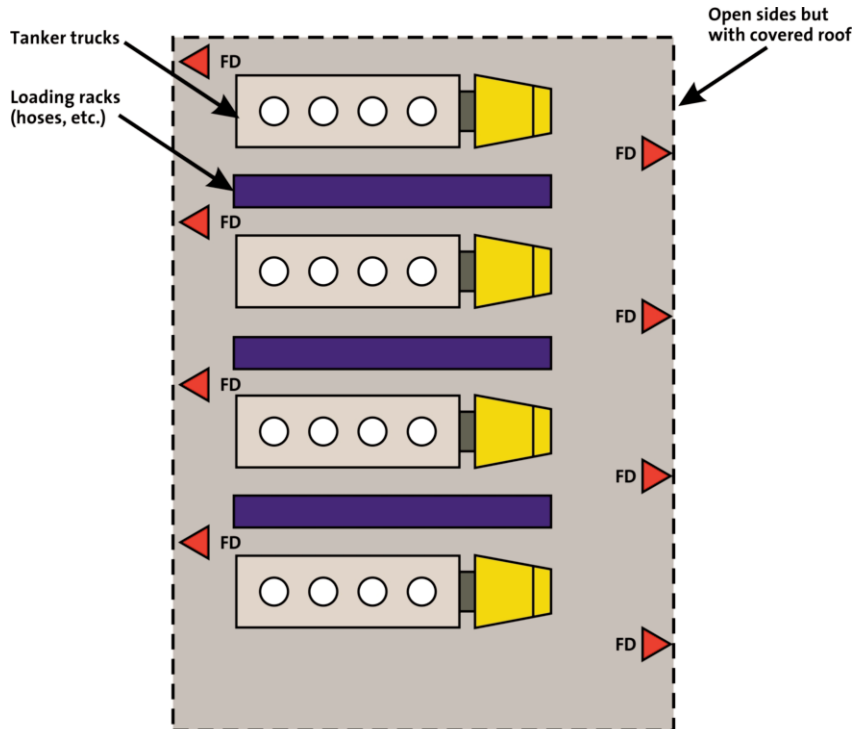
Because of the hazards associated with petroleum products, these areas must be monitored continuously. Each terminal bay area should be protected with 2 to 4 flame detectors and a controller in order to activate alarms, shut down loading operations if necessary, and turn on a (sprinkler or foam) fire-suppression system. The flame detector of choice is MSA's Flamegard® 5 MSIR Flame Detector, often mounted slightly above and on both sides of trucks or tank cars. Often, gas detection has not been used in these terminals, because personnel must be present during loading/unloading operations.

Solutions from MSA

MSA's Flamegard 5 MSIR Flame Detector with neural network technology sets a new industry standard for performance, reliability and value. This is the industry's first MSIR/NNT flame detector designed to operate at a longer range with a wider field of view and at a higher level of accuracy for superior false alarm immunity. Combining a precision multi-spectral IR sensing array with highly intelligent neural network processors, the Flamegard 5 MSIR Detector reliably discriminates between actual flames and nuisance false alarm sources (such as arc welding or hot objects). The unit detects virtually any hydrocarbon fire including natural gas (LNG) and liquefied petroleum gas (LPG).

*Because every life has a **purpose**...*

Tanker Truck Loading/Unloading Terminal



FD = FlameGuard® 5 MSIR Flame Detector

MSA Recommended Equipment



FlameGuard 5 MSIR Flame Detector

MSA's Suprema[®]Touch Control System offers the new standard in flame- and gas-detection technology through modular redundancy for the monitoring of 4-20mA input sensors, smoke detectors, heat sensors, and manual alarm call points. Offering signal processing for up to 256 inputs and 512 outputs per controller, this intelligent safety system is field-configurable and provides a distributed bus technology architecture to ensure fail-safe internal data transfer. This unit has ATEX safety approvals and TUV approval for up to SIL3 systems and cCSAus approvals.

For more information on these MSA products for terminal bay applications, go to www.MSAsafety.com for bulletin# 07-2078-MC, MSA Flame and Gas Detection for the Oil, Gas, and Petrochemical Industries.

Note: This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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