

## TANKER FUEL LOADING RACKS—USA

### Challenge

A major oil and gas operator posed the challenge to Micropack to resolve false alarms they were experiencing with IR3 flame detectors. The detectors were installed in the tanker loading rack area of a refinery in the USA. This environment poses many challenges for flame detectors to operate correctly. Hot CO<sup>2</sup> emissions from the exhausts of the tankers were causing the IR3 flame detectors to false alarm continuously, which resulted in costly false activations of the fire protection system. Other challenges posed to flame detection in this application are moving trucks, bright sunlight, hot surfaces (blackbody radiation) and the potential for dirt on the optics.

### Solution

Micropack proposed the use of the FDS301 Visual Flame Detector™ in this application because it is not susceptible to the main false alarm stimuli—the hot CO<sup>2</sup> being emitted from the trucks exhausts. Micropack fully assisted in carrying out comprehensive fire testing, comparing and documenting the performance of the FDS301 Visual Flame Detector™ to IR3 flame detectors.

### Benefit to Client

Our client was able to retro-fit the detectors instantly, safe in the mind that the confidence level in the flame detection system had been restored.

Through the use of the FDS301 Visual Flame Detectors, our client was also able to connect the live video feed to the site CCTV system. This enabled the operator to remotely monitor the operations and movement of the fuel trucks in the loading bays.

#### Facility

- Tanker Fuel Loading Rack

#### Location

- USA

#### Industry

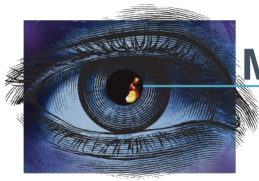
- Downstream Oil and Gas

#### Technology

- Visual Flame Detection—FDS301

#### Benefits

- No unwanted shutdowns from flame detection
- Safety level and confidence restored
- Save thousands of dollars by ensuring fueling can continue.



## Visual Flame Detection Features and Benefits

### Visual Flame Detection



The MICROPACK FDS301 is an explosion proof visual flame detector™. The device processes live video images to detect the characteristic properties of flames by means of its digital signal processing and hard-coded software algorithms.

### Live Colour Video



A live colour video image is available from each detector; this allows information about the protected area to be displayed on a monitor in the control room, providing the operator with a visual feedback of an event, which can reduce response time.

### False Alarm Immunity



The FDS301 demonstrates superior false alarm immunity. It is the safest and most advanced flame detector on the market today, and its track record on the thousands of installations around the globe has proven the instrument to be robust, even in the harshest of environments.

“ *The FDS301 has been a fantastic replacement to the IR3 technology. We are now installing hundreds more of the Visual Flame Detectors™ at other sites.* ”

Instrument Engineer | USA

