



# Petrochemical, Oil and Gas Facilities

Is business continuity paramount?

Protection for:

Offshore Platforms

Oil Refineries

Processors

Petrochemical Refineries

Drillships

Gas Wells

Distribution Stations

**VESDA**<sup>®</sup>  
by  **xtralis**

*Xtralis has years of experience in protecting oil and gas facilities around the world from the threat of fire. Companies such as ESSO, Woodside, Shell, BP and Caltex use VESDA systems to protect their facilities.*



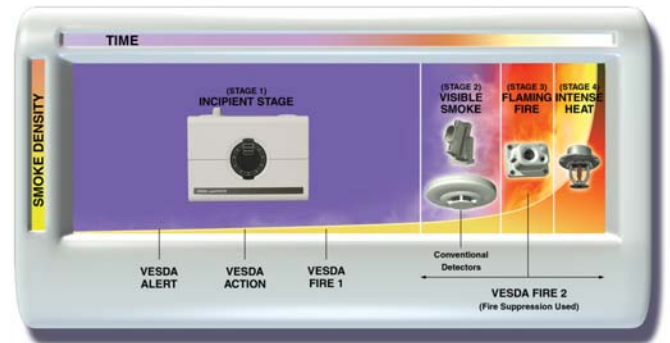
*The heavy investment in the oil and gas industry and the highly flammable nature of products create a strong need for early warning smoke detection. A disaster in this industry would not only threaten lives and facilities but also adversely affect national and international economies.*

## The challenges of smoke detection in Oil and Gas facilities

- Evacuating occupants safely in an emergency situation is always a challenge, particularly in offshore applications.
- The highly flammable nature of these facilities means an undetected fire could spread rapidly.
- Detector maintenance can be an issue in areas with difficult access.
- Smoke originating within electrical or mechanical equipment is slow to detect and can cause extensive damage to equipment.
- Access is difficult or limited in areas such as battery rooms, cable tunnels or where welding or other mechanical work is conducted.
- Smoke tends to stratify, not reaching conventional spot-type detectors located on the high ceilings of warehouse or storage areas.
- Remote and distributed facilities are costly and difficult to monitor and maintain.

## How do you overcome these risks and challenges?

Use an Air-sampling Smoke Detector (ASD) that provides flexibility in sampling hole location, multiple configurable alarms and a wide sensitivity range for a performance based design approach to fire protection.



A VESDA smoke detector can be configured to detect a fire at the earliest stage. The multiple alarm levels can be configured to initiate an appropriate and planned response.

## Why use a VESDA ASD system?

VESDA detectors buy time. Time to respond to a fire threat, minimizing damage and maximizing the time available to execute emergency response plans. The key advantages are:

- Multiple configurable pre-alarms to provide, for example, very early warning for investigation and subsequent warnings to initiate automated fire services notification, equipment shutdown, evacuation and suppression.
- The ability to locate sampling holes where smoke will travel and to position the detector in a location that has easy access for maintenance.
- Sampling pipes can be inserted into electrical equipment enclosures or close to high-risk areas.
- AutoLearn commissioning function will set optimum smoke alarm thresholds, taking into account background smoke levels, hence reducing false alarms.
- The wide sensitivity range of a VESDA detector allows alarm thresholds to be set for the earliest possible warning of a fire in a large open space.
- Advanced networking and monitoring software enables efficient remote monitoring and configuration in unmanned or secured areas from a centralized location.

## 7 reasons to install a VESDA system:



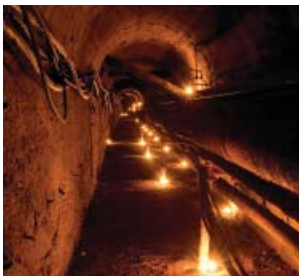
### **When business continuity is paramount**

A VESDA detector will provide the earliest warning of smoke in or near critical equipment, buying time to prevent smoke or fire damage. VESDA detectors are the ideal solution for the protection of control rooms and substations.



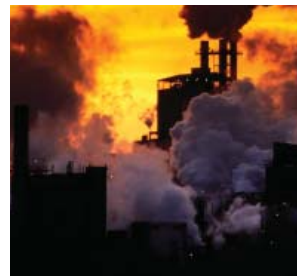
### **When evacuation is a challenge**

A VESDA system can provide very early warning of smoke so there is time to investigate, control the fire and if necessary, carry out a controlled and orderly evacuation, minimizing panic and danger.



### **When maintenance access is difficult**

Is the area being protected inaccessible? VESDA sampling pipe can be positioned near the risk area and the detector can be positioned for easy maintenance.



### **When environmental conditions are difficult**

In areas where dust and background levels of smoke are high, use a VESDA detector which has a clean air barrier to protect the detection chamber optics from contamination, ensuring long reliable service.



### **When smoke is difficult to detect**

In areas with high ceilings or where there is high airflow, smoke may be diluted or stratify below ceiling level, not reaching conventional point-type detectors on the ceiling.



### **When suppression systems are present**

Suppression release can be costly and disruptive to business. A VESDA system detects early and buys time to minimize damage. Configurable alarm thresholds can be used for cause and effect planning and to release suppression automatically.



### **When unobtrusive detection is required**

In areas where it's important to preserve the internal design/ decoration, a VESDA detector can be concealed in a utility cupboard and the only visible parts will be tiny capillary sampling tubes in the ceiling, barely discernable to the human eye.



Our global network of offices and representatives means that help is always at hand

## Oil and Gas facilities that are protected by VESDA by Xtralis smoke detectors

ADMA - OPCO, UAE	Petronas, Malaysia	DuPont, USA
Brunei Shell Petroleum, Brunei	Thai Oil, Thailand	Chocolate Bayou, Texas, USA
Mobil Oil - Beryl Alpha Platform, UK	Bukit Indah Power Station, Indonesia	Atlantis Offshore Platform, Gulf of Mexico
British Petroleum Grangemouth, UK	Hong Kong Petrochemical Company, Hong Kong	Empress Gas Plant, Alberta, Canada
Shell Oil, Sweden	CSPC Nanhai Petrochemicals, China	PEMEX, Mexico
Statoil, Norway	Shanghai SECCO Petrochemical, China	PDVSA, Venezuela
British Petroleum Headquarters, UK	Zhuhai Amoco Petrochemical, China	British Petroleum Exploration Offices, Azerbaijan
Amerada Hess Platform, UK	Shanghai BP LPG, China	PETROBRAS, Brazil
Aramco Berri Gas, Saudi Arabia	Shanghai Bayer Petrochemical, China	Gulf Petrochemical Industries, Bahrain
Shell Petroleum, Holland	Shanghai BASF, China	REPSOL, Argentina
PDO Oman LNG, Sultanate of Oman	Shell, Bonny Island, Nigeria	Zakum Oil Field, Abu Dhabi
Shell Oman LNG, Oman		

## Global Approvals



VPI 001



## Need more information?

Contact our nearest office or visit our website at [www.xtralis.com](http://www.xtralis.com).

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