PATOL
FIRE DETECTION SOLUTIONS

A complete fire detection solution.

In recent years, several recycling plants have had fires due to various external events and equipment failures. These events and failures have caused combustible waste products to be ignited with catastrophic results.

Recognising this, Patol recommend a combination of specialist products for early detection of potential and actual fires in harsh environments.

Modern recycling plants are by their very nature, dirty and dusty environments. The plants process mixed recyclable waste, which is collected, sorted, stockpiled and processed from a number of materials such as wood, plastic, paper, cardboard, rubber and carpet / tiles. The waste products are highly combustible and susceptible to potential ignition from the processing machinery.

Fire detection systems need to be able to detect quickly and reliably, with minimum long term maintenance and crucially without causing unwanted alarms. Fire detection systems not only have to protect life, but also the building and expensive plant and machinery.

Fast, reliable detection can reduce damage to equipment and the high cost of repair or replacement, minimise down time and consequential loss and lessen the impact for potential pollution and the possible inhalation of toxic fumes.

Patol is a global leader in the design and manufacture of specialist fire detection products for Industrial applications. Founded in 1968 Patol is a privately owned British company located near Reading UK.

Patol has strong domestic and export business experience historically within the Power Generation and Petrochemical sectors around the world. We also partner leading Fire Protection companies by providing a solution based approach with our products

Patol have developed three specialist detection products that provide a complete solution for potentially dusty environments. All products have been extensively used for many years to protect high value assets such as coal fired power stations and steel mills.

They are;

- Infra-red heat detectors for monitoring waste on conveyor systems.
- Linear Heat Detection Cable for machinery.
- Infra-red Long Range flame detection (over 100m) for the overall space within the building.

The Infra-red detection products incorporate air knives to keep the optics free from dust and reduce maintenance.

IR Heat Detector

The Patol 5000 series conveyor infra-red black body heat detector is an early warning sensor, which can trigger at temperatures as low as 100°C, when monitoring materials being transported on conveyor systems, before they have reached the ember or flame condition.

Its unique eight detector enhanced Infra-red monitoring has been created to detect black heat. Black body emissions occur for all material, the detector is designed to detect a change in these emissions even at relatively low temperatures, when the material moves through its field of view.

Linear Heat Detection Cable

The Patol linear heat detector cable is designed to provide early detection of Fire conditions and overheating in circumstances where other forms of detection would not be viable, due to the inability to sustain the environment requirements. Extensive single zonal lengths of the LHDC Digital may be installed with the ability to trigger alarms for hot spots occurring on very small sections of the overall cable. The LHDC may be employed in a wide variety of applications but is particularly suited where there are harsh environmental conditions.

IR Long Range Flame Detector

The Patol 7000 series Long Range Flame Detector is specifically designed for the protection of large enclosed or open spaces where other forms of monitoring are inadequate or impractical. The unit is particularly suited when there is a potential hazard due to volatile materials such as recycling waste. The detector employs enhanced infra-red monitoring technology that analyses the levels of IR emission in specific bands. The unique "signature" of a flame condition can be recognised whilst "background" and "transient" IR spectra are discriminated.