MICROPACK
FIRE & GAS
A Consilium Group Company

Flame detection systems for waste management facilities

Contents

Waste management facilities are prone to costly and dangerous fire outbreaks. Intelligent visual flame detectors and multi-spectrum IR flame detectors can help waste management teams quickly identify and respond to a fire. **Both detection methods are more efficient alternatives to heat detection-only systems.**

The Environment Agency recommends the use of CCTV visual flame detectors and multi-spectrum flame detectors at facilities where combustible waste is stored. Micropack's FDS301 and FDS300 products are both CCTV visual flame detectors, while our FDS303 is an IR3 (triple infrared radiation) multi-spectrum flame detector.

Fires at waste management facilities

Waste management facilities are highly prone to fires. **In April 2021 alone, three fires broke out at facilities in England, Scotland and Wales.** The results are costly, both to the public purse and to the environment.

Waste facilities are home to many hazardous and flammable materials. Batteries, for example, are known to cause millions of pounds worth of fire damage each year. But despite calls to reduce the levels of hazardous materials at waste facilities, they are extremely hard to control. For that reason, accidents are still common.

Once a fire breaks out at a waste management facility, it can be difficult to put out and prevent spreading. **In the UK, recent fires have smouldered for months at a time.**
For that reason, it's very important to put out fires almost as soon as they start. Traditional heat detectors are commonly used in waste management facilities. However, using heat detectors alone can be insufficient. **Without fast identification, fires can spread quickly.**

Visual and IR flame detectors are a better alternative to heat detectors alone. Video and infrared systems can be used to quickly verify a fire.

Flame detection system requirements for waste management facilities

In a waste management facility, flame detection systems must operate efficiently to avoid fast-spreading fires. For that reason, they need to meet a number of requirements.

These include:

Providing complete hazard coverage

Every section of the waste management facility that poses a hazard risk should be within detectable range. This should cover every part of the facility where combustible material is stored.

Operating in a dust-filled environment

Waste management facilities are dirty and dusty, meaning airborne particles can trigger false alarms. Detectors must be able to distinguish the difference between flames and dust to avoid the unnecessary and costly activation of automatic fire suppression systems.

Delivering fast response times to small fires

To be extinguished in time, fires must be detected when they are very small. However, waste management facilities are often expansive, with fire detectors located a long distance from a fire's starting point. Detectors must therefore have the capacity to detect small fires quickly, even from far away.

Having a high false alarm immunity

Shutting down waste management facilities and clearing up following the automatic triggering of fire suppression systems can lead to major expenses. False alarms must be avoided whilst detectors must still consistently identify real fires.

Being easy to maintain and test

Regular testing is essential at waste management facilities. Ease of testing and maintenance is therefore important, as it can save time and resources in the long run.

Benefits of Micropack Flame detection systems

Micropack's intelligent visual flame detectors and IR3 multi-spectrum flame detectors are optimised for performance in waste management environments.

Our systems help waste management facilities to reduce the risk of fires spreading.

Unrivalled false alarm immunity

Micropack Flame detection systems are proven to produce a low rate of false alarm. Our products' infrared and video capabilities are less prone to common causes of false alarms like dust and machinery emissions.

Wide coverage

Our detectors have a wide range of vision to avoid blind spots in waste management facilities, even with a limited number of detectors.

Fast response

Our flame detection products have an average detection time of 5 seconds from the start of a fire outbreak, allowing facility teams to respond to a fire before it spreads.

Live colour video

Visual flame detectors include an additional safety feature. Live CCTV colour video makes it easy to visually verify a fire. It also includes an on-board SD card for event recording, making it possible to explain the cause of a fire and take learnings for future events.

Certified performance

Our products have been rigorously tested and are certified to perform to the robust FM3260 and EN54-10 standards. We also have proven performance in reference sites located in the UK, Europe and the US.

Low cost

Micropack products are low-cost and long lasting, meaning they don’t need to be frequently replaced.

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Next Steps

Interested in learning more about our visual and IR flame detection systems?
Get in touch to speak with a member of the Micropack team.

Email us here: sales@micropack.co.uk