SmokeCatcher ensures fire safety for Belcolade battery charging stations

ABOUT BELCOLADE

One of the first things people associate with Belgium is chocolate. Belgian chocolate producer Puratos is doing a great job of keeping that Belgian tradition alive. From its facilities in Erembodegem, Belgium, **Puratos is producing chocolate for the professional market** under its Belcolade brand. In order to guarantee safety for its staff and the surrounding environment and to ensure production continuity, Puratos recently invested in fire safety technology, including the SmokeCatcher early warning system from Araani.

Belcolade is taking great pride in being a part of the rich heritage that has earned Belgian chocolate its extraordinary reputation. Exactly for that reason, the chocolate is – and has always been – produced in its factory in Erembodegem, Belgium.
In 2014, Puratos invested heavily its production facilities in Erembodegem, by doubling its production and warehousing capacity with no less than 7,500 square meters.

BRIEFING

BATTERY CHARGING STATIONS

The company's dedication to innovation and quality extends to the way all aspects of production and operational management are handled, including fire safety. With the 2014 expansion came an increased number of electrical forklifts for use on the warehouse floor, catering for the 9,000 pallet storage spaces.

All of these **forklifts have batteries that need to be charged.** This takes place in a compartmented area of the warehouse, where some **20 battery charging stations** are located.

Wouter Vanderstraeten, Safety Manager at the Belcolade plant in Erembodegem, stresses **the importance of fire safety in this type of environment**: "The area where Belcolade has installed its charging stations is **a critical hotspot we need to monitor constantly.** Battery charging poses a serious fire risk, so in case of a fire, we need to be able to control this and act upon it as soon as possible."

Battery charging equipment can generate fires for a variety of reasons, including short circuits, which may result from wet batteries or damage to cables, connectors, the charging units or the equipment on charge.

"Another challenge is that the battery charging stations are located in a peripheral area of the warehouse floor," says Wouter Vanderstraeten. "There is typically not that much people traffic there, so we just cannot rely on visual or manual controls for fire safety."

SOLUTION

24/7 MONITORING

Puratos has been using traditional fire detection technologies in its production facilities, including point detectors and aspiration detectors. These technologies rely on the fact that smoke will make physical contact with the detector. Although these technologies work fine in office-like environments, they are not really suited for critical company hotspots like the battery charging stations at Belcolade.

Wouter Vanderstraeten: "These conventional point detectors are quite slow. By the time smoke has hit the detector, the fire can already be in a developed stage, and in case of lead-acid batteries that produce hydrogen, they will not be able to prevent an explosion."

Shortly after the expansion of its facilities in Erembodegem, Puratos started to scan the market for innovative early warning systems for fire and smoke detection. Around that time, the company met with Belgian video analytics specialist Araani, and after having witnessed a number of successful demos, Puratos decided to install Araani's SmokeCatcher video smoke detection systems at the battery charging area in Erembodegem.

Today, five SmokeCatcher camera systems are monitoring the entire compartmented area – housing 20 battery charging stations – on a 24/7 basis.
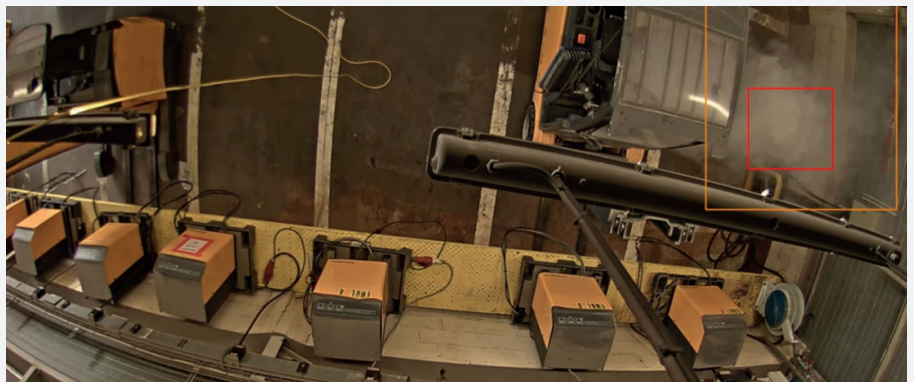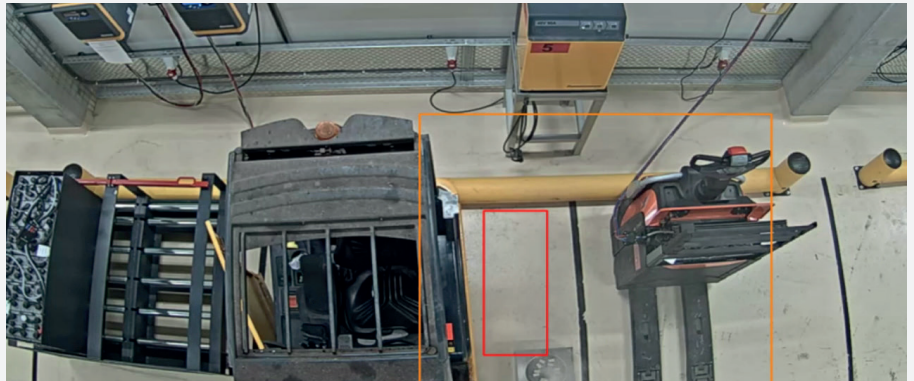
SUPERFAST SMOKE DETECTION

SmokeCatcher combines a high-resolution network security camera with onboard video analytics that allow for **superfast smoke detection.** Unlike conventional contact-based detectors, **SmokeCatcher does not need to make physical contact with the smoke.** The system can actually see starting smoke fumes from large distances. This saves many valuable seconds, which can be used to take action before a major accident happens.

In the case of Belcolade, whenever smoke is detected, an alarm is generated and an alarm siren is activated. Upon an alarm, an e-email is sent out to a group of 15 people and video fragments of before and after the smoke incident are included in the mail. This allows Puratos to take the necessary measures very fast, for example calling in a dedicated intervention team. Since every SmokeCatcher camera also has an IP address, **Puratos operators and management can check the real-time camera images anywhere and anytime.**

"The SmokeCatcher system from Araani has proven to be very fast," says Wouter Vanderstraeten. "The system has a pre-smoke phase – meaning that **the camera has detected significant smoke patterns** – and an actual smoke alert phase, which makes it possible for us to spot smoke development incredibly fast. Also, the visual nature of the system is just invaluable for a fire safety application like this.

We can immediately see in the camera images what exactly has triggered the alarm and where the incident has occurred. Also after the incident, the video footage can be very useful to better evaluate the incident, whereas before fire safety experts often had to guess what started the fire."

RESULT

CRITICAL COMPANY HOTSPOTS

Practically any production or engineering company has one or more company hotspots or specific places that are critical to the company's daily operations. Installations like battery charging stations, incinerators or boiler rooms need to be in good shape 24/7. But at the same time, these installations can cause great damage in case of a fire and therefore, they need extra monitoring for fire safety.

"We need to **reduce the risk of fires** as much as possible," says Wouter Vanderstraeten. "**With the accurate smoke detection of Araani's SmokeCatcher solution**, we can achieve that. I would definitely recommend this system. Especially for companies that have **areas with a high fire risk and low people traffic, SmokeCatcher is an excellent early warning system."**

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VISION ON SAFETY

ABOUT ARAANI

Founded in 2014, Araani is a Belgian high-tech company, specialized in video analytics for people, property and process protection. Araani is also the developer of SmokeCatcher, the company's advanced video smoke detection solution that has been designed to guarantee business continuity and fire safety for companies that operate in critical and demanding environments.

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