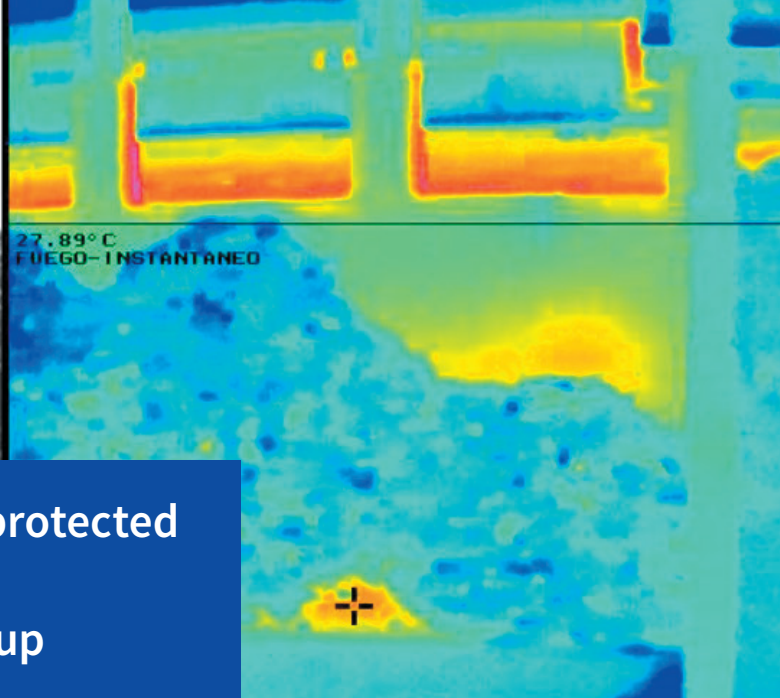




Murcia Waste Management Center protected by MOBOTIX thermal technology in collaboration with the Security Group

The Waste Management Center located in Lorca, Murcia, faced a recurring fire problem due to the accumulation of waste and the high temperatures during the summer months. Each year, at least one or two fires broke out in different areas of the center, causing considerable damage and jeopardizing the safety of the facilities. The extension of the plant and the dispersion of waste in different areas complicated the early detection of fire outbreaks, resulting in fires being detected too late to minimize damage.

Conventional video surveillance cameras previously installed could only identify fires once they had already started, but did not offer a proactive solution to prevent them. Faced with this scenario, the center was faced with the need to find a more effective solution that would detect fires at an early stage and thus minimize the risks to the facilities and the environment.

THE SOLUTION: THERMAL VISION FOR EFFECTIVE AND EARLY PREVENTION

Grupo Security, with more than 12 years of experience working with MOBOTIX, was responsible for leading the installation and configuration of this system. According to José Ramón Guirao, Systems Director of Grupo Security, the decision to opt for MOBOTIX thermal imaging technology was clear from the beginning:

“Although we work with several manufacturers, MOBOTIX’s quality, robustness and durability have proven to us for more than a decade that it is the ideal choice to respond to the specific needs of our customers. In this case, thermographic technology allowed us to offer a solution that not only ensures surveillance, but also detects fires before they become a real problem.”

To address this problem, the installation of 5 MOBOTIX thermal imaging cameras with 45° thermal radiometry was chosen. This solution was chosen for its ability to detect fires at the earliest stage, allowing the center’s operators to act proactively before the fire spreads. Three of these cameras are additionally equipped with motion rotators, which allow greater visual coverage in the most critical areas, widening the surveillance angle and maximizing the system’s effectiveness.

This video surveillance system is connected to the German company’s software, which facilitates control and management from the customer’s control center. At the same time,

Key information

Industry

Waste Management

Partner

Grupo Security



Timeframe

2023

“

Initially we installed two cameras, but after seeing the results, the client decided to add three more, and now we are in the process of adding two more. The system has proven to be so effective that it even notifies us of false alarms, allowing us to visually verify whether there is a real problem or not, without complications.

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*José Ramón Guirao,
Systems Director of Grupo Security*

the cameras are integrated with the software for alarm receiving centers (ARC), providing an additional backup that allows receiving notifications and managing alerts quickly and efficiently in the event of an emergency.

“Previously they had about 40 conventional cameras covering the whole area, but they were unable to detect incidents effectively. The thermographic cameras, with their built-in intelligence, are able to alert us only when there is something really relevant, which makes the system much more efficient and accurate,” says Guirao.

DEVELOPMENT AND INSTALLATION CHALLENGES

One of the most important problems occurred due to frequent power outages at the plant, which affected the operation of the rotors in the chambers. Without electricity, the rotors lost their initial position and the movement patterns varied. To solve this problem, specific configurations of the rotors had to be made additionally, and uninterruptible power supply (UPS) systems were implemented, which ensured that the chambers continued to operate even during power outages.

Another challenge that arose was the occurrence of false alarms due to the heat generated by the center’s machinery. Initially, the cameras detected overheating in the equipment as if they were fire sources. After several adjustments to the configuration of the MOBOTIX Thermal validation App, the system was able to accurately distinguish between a real fire and heat generated by the machinery.

“The Thermal validation App has been key to the success of this installation. It has allowed us to detect the real heat sources and distinguish them from other causes, such as machinery overheating, which has significantly improved the accuracy of the system,” says Guirao.

WHY MOBOTIX?

Thermal imaging cameras offer great versatility to adapt to the specific needs of each customer. This system can not only be integrated with alarm receivers or local control centers, but can also send alerts directly to mobile devices, activate automatic extinguishing systems or sirens, and be customized according to the requirements of the environment.

“What we liked most about this solution is its complete integration within the MOBOTIX ecosystem, which greatly facilitates configuration and commissioning, without the need for additional systems. The simplicity of the installation, combined with its versatility to integrate with other systems, makes it an ideal solution,” explains Guirao.

In addition, the system has proven its effectiveness since its implementation, since two fires were detected early by the thermal imaging cameras since its installation in 2023, enabling the team to act quickly and prevent further damage. The satisfaction of the center has been such that, after the initial installation, it was decided to add more cameras to further increase coverage.

