Highly combustible recycling “fluff” material represents a constant threat which can burn down an entire facility in minutes.

Recycling facilities, where valuable metals are separated from various other materials such as cloth and plastic from vehicles, face a real danger from spontaneous fire. At these facilities the recyclable material is organized into large “fluff” piles -- a mix of cloth, plastic, metal, and rubber that are often saturated with oils capable of igniting. This blend of materials is highly susceptible to combustion when the right mix of “fluff”, chemicals, and environmental conditions are met; these fires quickly spread and can endanger the entire facility.

**SCENARIO**

Recycling facilities endure a constant risk of spontaneous combustion at their facilities. EyeMax's customer, one of the largest recycling companies in the U.S., needed a cost-effective means of reducing the risk of fire in its recycling facilities nationwide.

"Because the recycling yards are not typically operating at night, a fire there can spread unchecked if not detected early, potentially causing millions of dollars in damage” commented Bob Stanley, CEO at EyeMax Security, the installer and monitoring services provider.

Moreover, from a security standpoint the facility was particularly vulnerable once dark. The existing CCTV installation provided poor performance at night due to its reliance on standard CCD imaging technology, poor lighting, and chain-link fencing.

"Our customer needed an early warning system that was reliable and could withstand the harsh conditions of the recycling facility.

Vumii’s Sii AT and ML cameras with Fire Detection were a perfect fit."

Bob Stanley, CEO, EyeMax Security
SOLUTION

EyeMax had three key requirements: first, the cameras needed to be able to provide safety and security equally well both day and night and provide fire detection during the plants most vulnerable hours, at night.

Second, the fire detection system was required to have an extremely low false alarm rate alerting the EyeMax monitoring service in order to avoid operator fatigue and false alarm calls to authorities.

Finally, the cameras needed to integrate seamlessly with the EyeMax video monitoring systems currently in use at the recycling facilities.

Thermal camera systems rely on the infrared energy emitted by all objects to create an image that contrasts warmer objects within a cooler background. Because it does not rely on visible light, this type of imaging provides superb contrast irrespective of the lighting conditions. In addition, the Sii AT and Sii ML camera systems have advanced proprietary image processing and temperature threshold calibration that enhance the contrast even further, virtually eliminating false alarms.

The camera systems are available as analog or IP camera solutions. For this project, EyeMax chose the IP configuration for its quick and easy installation using power over ethernet (PoE) network infrastructure and for its simple integration into the GeoVision monitoring software.

SUCCESS

Since the first project was completed in August 2013, the cameras have outperformed all expectations. “Our customer was already very comfortable with the security monitoring services that we provided, but Vumii fire detection cameras were a key upgrade for them,” said Stanley. “The cameras are being monitored by our operators 24/7 and we haven’t had a night-time false alarm since the installation date” Stanley continued.

Vumii’s Sii AT and Sii ML systems continue to be specified to provide safety and security protection at recycling facilities across the U.S. After the first installation in South Florida four more installations have taken place at EyeMax customer facilities in Florida, New Mexico, and Maryland.