

MAKING THE GRADE

How we are providing rapid and reliable fire detection in a quarry grading facility.

SUMMARY

The UK's leading building materials business needed a reliable and effective fire detection solution for a new grading plant at one of their flagship quarries. Despite mediating measures, the operating conditions inside the plant are extremely challenging for fire detection. The Ciqurix CORE system is being used to provide detection across the facility.



CHALLENGE

Following a devastating fire at the previous screenhouse the site operator and their insurer were keen to find a rapid and reliable fire detection solution for the replacement facility. Aspirating detection and video smoke detection were both evaluated, but the amount of airborne contamination within the space meant they just weren't going to be effective. Linear heat detection was specified within machines and conveyor housings, where it would pick up internal fires, but heat detection would be ineffective and very slow to trigger in the main spaces and outside of those specific machine enclosures. Thermal video detection was also considered, but the presence of multiple legitimate heat sources made it impractical.



DETECT MULTIPLE FIRES IN SECONDS



ALL LIGHT LEVELS - DAY & NIGHT



BOTH INDOORS & OUTDOORS



SEE FIRE AT UP TO 180 METRES



Site control room showing live feeds from Ciqurix video detectors.

SOLUTION

The electrical engineering consultants responsible for the project evaluated numerous detection technologies before proposing the Ciqurix CORE video flame detection system. The site insurer was not familiar with the technology so they conducted their own due diligence and evaluation process before accepting the proposal. The CORE system consists of 14 video flame detectors and 3 control hubs, positioned to cover open areas and areas of risk. Comprehensive 3D modelling was used to predict coverage and establish the most effective mounting locations. The CORE system is linked directly into the site fire system to provide zoned fire and fault notification, and also provides a live video feed from each detector into the site control room.

RESULTS

Following a soak test period the system was commissioned and handed over. The site operators are happy with the system and the insurers are satisfied. There have been no false alarms, despite the system being able to detect a small fire within 10 seconds - something no other technology is able to do in this environment. Both the consultants and the site operator have adopted the Ciqurix CORE system as the first choice technology for all similar future projects, three of which are already underway.

EFFECTIVE SYSTEM WITH NO FALSE ALARMS TO DATE

FULLY COMPLIANT TO BS5839-1 WITH NO VARIATIONS