

Axis cameras resolve surveillance and assist with health and safety management at Donarbon.

Network cameras identify unsuitable refuse taken to Cambridgeshire waste management plant.



Organization:
Donarbon

Location:
Cambridgeshire, UK

Industry segment:
Utilities

Application:
Waste management,
health and safety,
remote monitoring and
security

Axis partner:
3IT

Mission

At Cambridgeshire's largest waste management park, Donarbon was keen to upgrade its existing surveillance system to help improve health and safety across the site. It also wanted to be able to record all vehicles entering and leaving the park and monitor deposits so that any persistent offenders dumping unsuitable refuse could be identified. At the heart of Cambridgeshire County Council's waste PFI (Public Finance Initiative) contract with Donarbon is the Mechanical and Biological Treatment (MBT) plant. A surveillance system to help the MBT control room view what's happening on the plant was essential to assist with health and safety management and also to monitor waste arrivals for anything unusual.

Solution

Donarbon's IT contractor, 3IT, recommended an IP-based surveillance solution from Axis Communications. A range of Axis network cameras were deployed throughout the site that deliver excellent image quality under all lighting conditions over the IP network.

To view and record the footage taken from the cameras, 3IT advised Donarbon to use AXIS Camera Station, a software solution for simultaneous viewing and recording of high-quality, H.264, MPEG-4 and Motion JPEG video, with no recording limitations.

Result

Donarbon now has an extremely effective surveillance solution which not only monitors vehicles entering and leaving the site, but also contributes significantly to health and safety improvements. An unexpected benefit the surveillance system delivers is helping the MBT plant's engineers to remotely monitor the equipment and quickly identify any major faults. 3IT also set up the MBT technology providers in Austria with remote access to the surveillance system to assist the on-site technicians with fault diagnosis.

"The Axis network cameras save us a great deal of money when it comes to insurance claims. We will have evidence of what has happened in the case of an incident and can prove liability."

Huw Gaskill, MBT Manager, Donarbon.

Axis cameras assist with health and safety management at Donarbon

Donarbon, part of the Dickerson Group, is based on a 200 hectare site at Waterbeach, Cambridgeshire. It has a major waste PFI contract with Cambridgeshire County Council to treat the county's waste and ensure the council meets recycling targets. As part of the PFI contract, Donarbon has a MBT plant, the first of its kind in this country. It uses the latest technology to sort waste and helps reduce the amount sent to landfill as up to 80% can be recycled.

Unwanted items

Donarbon waste management park accepts a range of waste brought in by various vehicles and means. Staff often find objects in the waste that could damage the expensive machinery so it is vital to survey the tipping area to identify these items so that they can be removed. Damage to the site by garbage trucks and dumpsters was also a problem, and Donarbon was keen to monitor this to identify repeat offenders.

Donarbon already had analog cameras in place, but was looking to step up its surveillance. It approached 3IT, its IT provider, to suggest a solution. "We recommended Donarbon upgrade to an IP-based solution as it would provide the image quality needed for improved surveillance and allow for images to be shared remotely over the network – which is very useful in the event of an incident. As a partner of Axis Communications, we didn't hesitate to base the new system on its technology," said Kevin Auden, director, 3IT Ltd.

3IT placed Axis cameras in strategic locations in the plant: AXIS 225FD Fixed Dome Network Cameras were positioned in the reception, AXIS 221 Network Cameras were installed in the entrance bays and AXIS 232D+ Network Dome Cameras were installed in the preparation hall. To view and record footage, Donarbon uses AXIS Camera Station, a software solution for the simultaneous viewing and recording of high-quality video. 3IT recommended that footage be stored on NAS (Network Attached Storage) boxes located throughout the site.

Unexpected benefits

The MBT plant is designed to run with only a few people and this is now possible thanks to the cameras. The production coordinator is responsible for identifying the location of staff across the site and he can now view this from a PC in the control room. 3IT also installed a 42" wall mounted monitor so control room operatives can look at all the cameras at once and another monitor is in the reception to allow visitors to view the working plant.

The MBT machinery sorts around 50 tons of waste per hour and any blockages could cause it to come to a halt. 3IT have now set up the IP-based system so that the engineers responsible for support and maintenance of the machinery can log on remotely and identify any faults over the Internet. The engineers then advise staff on site, which speeds up the repair process and reduces costs as call outs are fewer.

Commenting on the benefits of the new surveillance system, Huw Gaskill, MBT manager, said: "The cameras' PTZ functionality means we can rotate the cameras 360 degrees and zoom into a bolt head. This greatly assists with quickly locating blockages. Whenever a vehicle enters or leaves the site, we now have video evidence and if any damage is caused we are able to identify the vehicle responsible. This saves us a great deal of money when it comes to insurance claims as we can prove liability."

"The cameras also help us identify any hazardous goods discarded onsite. For example, recently a garbage truck deposited some smoldering waste and we could zoom in and detect the problem immediately."

James Challis, Group IT Manager said "We are even using recorded footage to educate visiting school parties on recycling and waste management. This enables us to show them how the MBT plant works without them having to go near the machinery. Now, thanks to the IP-based system, we have an extremely effective surveillance solution which contributes significantly to health and safety management and keeping our machinery operational at all times."

