

IP video improves process control in a solid waste treatment facility.

Axis HDTV and megapixel cameras help to achieve improvements in process control, security and other aspects at a municipal solid waste plant.



Organization:

Comsermancha and
CESPA (Ferrovial S.A.)

Location:

Alcázar de San Juan,
Ciudad Real, Spain

Industry segment:

Critical infrastructure

Application:

Safety and security,
process control

Axis partner:

Netcom Systems

Mission

Comsermancha is a Commonwealth of Services formed by 21 municipalities of Castilla-La Mancha, with a total population of approximately 200,000 residents. Since 1975, it has worked toward the conservation and improvement of the region, offering services to municipalities and citizens. In 1999, it opened a Municipal Solid Waste Treatment Facility located in Alcázar de San Juan. After public bidding in 2013 for the contract to provide the collection and treatment of solid waste throughout the Commonwealth (awarded to Ferrovia Services), Comsermancha went ahead with the installation of a video surveillance system to deliver monitoring critical to the waste treatment process, as well as to provide overall perimeter monitoring.

deliver educational activities to elementary and middle school students in the municipalities. The system was designed to raise awareness of the problems associated with waste generation.

Result

The proposal submitted by Netcom Systems was awarded the contract and the company proceeded to install a total of 12 Axis network cameras with advanced network configuration capabilities – necessary for such a large coverage area – and a centralized viewing and recording system in the administrative area of the waste treatment plant.

Solution

Based on the recommendations of Axis partner Netcom Systems, a solution based on IP cameras was proposed that, in addition to satisfying the needs outlined in the bid, would also offer video monitoring to help maintain adherence to Occupational Safety regulations and

“Our level of satisfaction with the IP video system is very high and for this reason we are planning on expanding it, adding cameras to increase its capabilities. Currently, we are considering the addition of a license plate recognition system to achieve unattended supervision of the weighing of truckloads of material being delivered to or shipped from the facility.”

Sergio Cabellos de Francisco, head of FCESPA at the Alcázar de San Juan MSW plant.

Since 1975, Comsermancha has supported conservation and improvement of the region, offering services to municipalities and citizens, and establishing practices for increased sustainability as a way of contributing toward the well-being of its inhabitants. Among the services provided are the following: trash and recycling collection; recycling facilities; waste processing; renewable energy production; and environmental education.

A more environmentally-friendly solution

The Alcázar de San Juan Municipal Solid Waste Treatment plant was built in 1999, replacing one that had been in operation since 1976, with the objective of achieving a more environmentally-friendly solution for the handling of household waste generated by the municipalities taking part in Comsermancha. Today, as a result of the contract awarded to Ferrovial Services, it handles close to 200 tons of waste daily from among four main areas: a sorting and recycling facility; a composting facility; a biogas and energy-generation plant; and a controlled landfill. The plant's service commitment emphasizes the continued addition of cutting-edge waste treatment technologies for the population, with the ultimate goal of becoming a leader in the field of waste management.

In 2013 – in order to achieve Integrated Environmental Authorization, a standard created at the start of the new millennium regulated by the European Union – they decided to put out a public bid to install a best-available-technology video system allowing centralized viewing and recording from areas within the administrative building. The system's aim was to achieve complete monitoring of processes within the treatment plant, the outer perimeter of the buildings and the landfill area.

Netcom Systems, an experienced company in the region and Axis partner, decided on a solution for the project by proposing a video system consisting of 12 Axis network cameras of various models. It's winning proposal included the AXIS M3006-V Network Camera, for the monitoring of processes within the facilities.

In addition, a combination of fixed AXIS P1354-E Network Cameras, plus AXIS Q6044-E and AXIS P5415-E PTZ Network Dome Cameras were added, in order to obtain general as well as detailed views of the perimeter, main access points and landfill area. The HD and megapixel resolutions of these cameras allow for comprehensive monitoring in great detail throughout all areas of the facility. The system is bolstered with NAS support by Synology for image storage, and a control center, where the tasks of monitoring and the review of recordings take place.

Educational activities

As a result of installing the new IP video system, all the major requirements outlined in the list of technical specifications were satisfied. In addition, improved monitoring of employees with regard to Occupational Safety regulations was achieved. The facility to conduct educational activities geared toward elementary and secondary school students in the region was created – raising awareness of the importance of recycling. Furthermore, network connections from cameras in several areas at the plant have been made available to schools, providing visual information to students on the processes taking place at the facility.



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