

Axis HD cameras help achieve surveillance for commercial reserve depot in Cao Feidian.

Introduction of video surveillance system for Sinopec (Cao Feidian) commercial crude oil depot.



Organization:
Cao Feidian Commercial
Crude Oil Reserve Base

Location:
Hebei, China

Industry segment:
Critical infrastructure

Application:
Safety and security

Axis partner:
Beijing Ginis Electronics
Technology, Ltd.

Mission

Sinopec (Cao Feidian) Commercial Crude Oil Reserve Base is the third largest commercial crude oil reserve base in China and is composed of 32 100,000 m³ large floating-roof crude oil tanks, oil transfer pump stations and firehouses. With the completion of the commercial crude oil reserve base, Sinopec established a complete loading & unloading, storage and transportation system in Cao Feidian, laying a foundation for the construction of large refining base and playing a supportive role in the development of the petrochemical industry in Cao Feidian and even North China.

To meet the needs of production operation, fire prevention as well as security protection and management, a surveillance system was set in the reserve base. The main purpose was to monitor the oil tank area, firehouse, fire pump station, power substation, oil transfer pump house, enclosing walls and main intersections to discover risk incidents and provide alarms and fire indication. The video surveillance solution should be connected to the surrounding alarm systems.

Solution

The network video system from Axis is based on open IP standards and has storage and management system constructed on the computer LAN system. The system includes IP cameras, video management and streaming media servers, video storage servers, TV surveillance terminals, etc.

Result

The surveillance system can use any microcomputer/laptop on the network as the surveillance client. This solution eliminated the need of dedicated surveillance room and enabled the staff and management to check the image required whenever and wherever possible.

“The oil depot adopted Axis cameras which deliver very clear and smooth surveillance image, providing great help in our production management. Meanwhile, Axis’s pre-sale and after-sale services are also highly efficient and professional. This cooperation with Axis makes us very comfortable.”

Instrument Engineer of Sinopec (Cao Feidian) Commercial Crude Oil Depot.

Axis network cameras were selected when developing the surveillance system for the oil depot in Cao Feidian. In the explosion-proof areas, AXIS Q1755 Network Cameras were installed to monitor the device status. In the production area, outdoor high-speed HD AXIS Q6045-E dome cameras were chosen to monitor the personnel and devices as well as for perimeter protection of the depot areas. In the indoor areas, such as the electrical distribution room and cabinet chamber, indoor domes AXIS P5415-ZE were installed.

Management of the cameras and the surveillance system is handled in the surveillance cabinet inside the integrated office building. Cameras and alarm are linked to provide alarm messages supported by video footage. The surveillance terminal can execute all video surveillance after logging onto the management server and provides real-time surveillance, video playback, alarm management and an electronic surveillance map.

Multiple functions

Real-time surveillance can be done in full sub-screen display and the PTZ cameras can be controlled directly. The system can also provide planned video recordings, manual screenshots and multiple image storage modes. The video data can be searched according to the place, alarm event or by a specific time. Further, the video playlist can be managed or edited which makes it possible to conduct video playback or manage the video disk space as needed.

Flexible alarm functions

The users can manage the time for protection and removal of alarm points. During the protection period, the server can, after receiving the alarm signals, link the presetting bits and video recording of cameras or coordinate other devices. The prompt and pop-up of the alarm message can be linked to the camera window or the map where the devices are located. The alarm video recording can be searched and exported to a local computer and dynamic image detection can be provided.

Electronic surveillance map

The surveillance system supports an electronic multi-level map of the system where the operators can click on icons to check the camera image or the alarm status. When there is an alarm, it is possible to jump to the map section showing the alarm site and prompt the alarm source.

