



Case Study

CP PLUS Coral HDCVI Secures Vedanta group Company

CP PLUS deploys HD-over-analog HDCVI Solution to secure Talwandi Sabo Power Limited (TSPL), a Vedanta Group company in Punjab

Background

Talwandi Sabo Power Plant Limited, the first unit of largest power generation facility in Punjab, is generating 1980 MW of electricity for 20 lakh households. This is also a coal-fired thermal power production project with 3 units of 660 MW each. The plant set up by the Vedanta group, is being projected as a major step towards making Punjab power surplus.

The CCTV surveillance system has been installed to ensure proper working of the sub plants of the Vedanta Thermal Power Plant – Talwandi Sabo to cover the security risks and also to monitor the operations.



Mission

A thermal power plant is a vast electricity generating set up which includes many diversified and integrated operations. The plant houses a heavy machinery, which works continuously for a long duration. A small snag in any component may hamper electricity generation. Apart from routine maintenance schedules, it's prudent to monitor the key parameters like emissions - a regulatory issue and grave concern for environment, temperatures, discharge of waste, etc. Besides this, protection of the perimeter of the plant against any illegal intrusion is key to the safety. In large and environment critical installations as large as thermal plants, strict adherence to the process and regulations is a mandatory requirement to ensure smooth operations. All critical monitoring was carried out largely with physical and conventional security. This left security vulnerable to manipulations and potential sabotages. So, a complete and fool-proof security, independent of complete human intervention was required.

Solution

CP PLUS has a vast experience and offers the largest range of portfolio of video surveillance essentials. This gives comfort to any Surveillance System Architect to design fool-proof design/solution without any black hole or security compromise.

The team identified locations where installation of analog cameras can leverage to monitor not only emissions but also surveillance of the chimneys, DM water plant, perimeters and the EDP

area. Since cameras were located at relatively longer relative distances, various parameters and factors were considered while laying the cables and selecting other peripherals to ensure optimum working of the system. The safety and longer life of cables was ensured by passing them through PVC conduits. This offered the long-term benefits. This made system maintenance free for a long period.

To enhance protection from exposed to the harsh arid weather, high quality switches and RJ 45 connectors were installed. All the connections were properly sealed and secured to avoid dust and moisture going into the connections.

After analyzing the locations and system requirement, and discussing with power plant management, the team decided to deploy HDCVI solutions. HDCVI range of solutions is ideal choice where analog solution needs to be upgraded for HD video quality. The other big advantage of HDCVI technology is loss free signal transmission over long distances as far as 500 feet. The cables can carry audio and video signals on the same cable, which saves infrastructure cost substantially. With HDCVI, operation and maintenance costs are quite favorable.

The CP PLUS team selected following cameras:

CP-UVC-T1100R5: Image Sensor: 1/2.9" 1Megapixel HQIS Pro with shutter Speed:1/50s~1/100,000s, Lens: 8mm, Video Streaming: Main Stream:720P(1 ~ 25/30fps), Extra Stream: D1/CIF(1 ~ 25/30fps), IR: Array Range of 50 Mtr, with IP66 (waterproof)

CP PLUS UVR-0801G1: HDCVI DVR, H.264 dual-stream Video Compression, supports Up to 8 cameras with 1080p Real-time Preview, mobile phone accessibility with CMOB and CMS with KVMS software.

The DVR supports H.264 and works with CP PLUS Centralized Management Software- KVMS, which provides the option for users from any remote location to have access to live or recorded video via a PC or mobile device, such as a smartphone or tablet.

Impact

The HDCVI video surveillance solution is working fine and fulfilling the expectations of the client. The operation and maintenance cost of the system is much less than any other surveillance system. Active monitoring has led to proactive measures and thereby enhanced safety. Any process violations are reported to the technical management team. The video quality is beyond expectation.

The security system has certainly enhanced situational surveillance and has ensured process compliance. The system is nicely complementing physical security.

System Integrator: Z plus Surveillance Security Pvt.Ltd.