

IP Security Design, Installation and Training for Water and Wastewater Treatment Plants

Summary

AFL provided Winston-Salem/Forsyth County Utilities with an end-to-end turnkey IP security solution to provide secure card access and plant CCTV coverage. The systems are used at the Archie Elledge Wastewater Treatment Plant and the R.A. Thomas Water Treatment Plant. Both plants have the capacity to treat 30 million gallons of wastewater (Elledge) and water (Thomas) per day.

Challenge

Both the Elledge Wastewater and R.A. Thomas Water Treatment Plants required state-of-the-art IP security solution that operated on a completely independent network, capable of supporting plant-wide expansion that includes remote facilities. Additionally, a secure intelligent system was needed to provide a high level of security plus function to monitoring plant activity.



Solution

AFL's solution included a three-prong approach using products and systems from Infinias and Pelco and AFL's network design and installation expertise.

The Infinias access control system provides intelligent decisions for plant-door access. Integrated to control access to multiple gates, on and off the plant, the system is interconnected through an existing single-mode fiber optic ring. AFL provided full integration of the access control system to the plant CCTV solution to allow certain door/gate events to control cameras.

AFL installed an end-to-end Pelco solution that included Pelco's Network Video Recorder and IP cameras. AFL installed multiple viewing clients throughout the plant on the security network utilizing DS Control Point, a graphical user interface used to monitor and operate a combination of IP video capture devices across an IP network.

AFL's design involved installation of all harsh environment stainless steel cameras and designing UL-listed, stainless steel secure enclosures for installing power supplies, POE Ethernet devices, network switches with single-mode Gigabit backbone ports, and associated structured cabling.

Results

With this highly functional, extremely scalable security solution, both the Archie Elledge Wastewater and R.A. Thomas Water Treatment Plants are well-protected facilities with secure card access and plant CCTV coverage. AFL's local technicians provide onsite support when needed.

