

CASE STUDY

Chemical Facility Security

Securitrronics designs and delivers intelligent security and operations solutions for banking, multi-tenant, commercial, healthcare, manufacturing, and other industries.

Securitrronics is a solutions-driven problem solver, selecting the right technology and integrated systems for every challenge.

Executive Summary

Global chemical companies operate a variety of facilities, ranging from common office space to complex industrial manufacturing facilities. Many are also part of the Department of Homeland Security (DHS) Critical Infrastructure Chemical Sector which requires specific electronic and physical security measures. While video surveillance is designed to meet the security guidelines imposed by DHS, alternative video surveillance usage can maximize operational productivity while minimizing risk and liability.

Client Challenge

A large chemical manufacturing facility experienced a failure in their pump farm, resulting in a regulated chemical discharge. This type of discharge can displace residents and injure workers. Furthermore, this type of discharge is concerning to the Environmental Protection Agency (EPA) and may cost the company hefty fines, cause prolonged operational downtime, and adversely impact the environment in and around the facility. Ultimately, the company may experience an irreversible decrease in consumer confidence and stock value.

This project required immediate action to identify pipeline breaks and minimize the chance of future discharges.

Solution

Securitrronics designed a solution that introduced additional video surveillance cameras, equipped with video analytics, throughout the pump farm for the process operators. These cameras would also notify the operators if a system failure occurred.

When the cameras' video analytics are triggered by specific abnormal activity in the field of view, video camera streams are displayed in an alarm window on the operators' desktops. This alarm activation draws immediate attention, allowing operators to respond faster than simply viewing dozens of camera feeds simultaneously and hoping to catch a failure firsthand.

Results

With this smart video surveillance solution, the chemical company realized immediate benefits:

- ▶ The video cameras with analytics can detect a failure in the system immediately with automated alarms and notifications.
- ▶ The pumping system can be shut down once the failure is realized.
- ▶ The appropriate management and response teams can be notified according to emergency response plans.
- ▶ Downtime is minimized with quick realization and reaction to the emergency.
- ▶ Immediate, automated notification can prevent or stop a dangerous environmental impact by minimizing the duration of an uncontrolled chemical leak.
- ▶ The solution saves the company money by limiting cleanup costs and reducing operational downtime.
- ▶ The solution maintains consumer and shareholder confidence in the company brand and reputation.