Application Note | Oil, Gas, & Chemical





LNG Terminal Operations and Security

Specialized IVC cameras were added to a LNG (liquid natural gas) terminal on the East Coast when it was being refurbished and modernized. The plant provides natural gas to a pipeline network running from Florida to Maine. The systems integrator responsible for upgrading the process control system selected IVC to provide a video system to monitor operations and provide on-plant security. The ability of IVC systems to interface with the plant's process control system, the ability of IVC camera optics to view vapors, the accuracy of IVC's PTZ camera controls, the availability of a PTZ dome camera certified for use in volatile gas environments, and the ease of installation on the existing fiber-optic network were the key reasons for selecting IVC video systems.

IVC PTZ cameras were configured to connect directly to a new fiber-optic network at the facility and they were placed at critical areas within the terminal, including around piping and valves to automatically achieve a view and make recordings of leaks that might be reported by the process control system. Additionally, some of the cameras were placed on top of large gas tanks for overall facility monitoring. Other cameras were placed on the terminal's pier, one mile offshore, to monitor tanker off-loading and its surrounds.

The facility, which has a potentially hazardous and volatile environment, requires all electronics to be certified as "not able to ignite volatiles" and therefore safe for use in that environment, even with two additive failure modes. IVC developed PTZ dome enclosures that are pressurized with dry nitrogen and have the necessary automatic

shut-downs and failure alarms to meet the comprehensive and stringent requirements. The dome and camera assemblies were tested and certified as compliant with Class I Division II standards by Factory Mutual, a NRTL (Nationally Recognized Testing Laboratory). The approval process included a thorough review of IVC's manufacturing processes and requires a quarterly visit to IVC's manufacturing facility to audit its incoming material testing, its production processes, and its final testing procedures, and its documentation to insure an ongoing compliance with the requirements of the certification.

Beyond their principal use for monitoring, the cameras are available for remote use by other agencies in the event of fire, terrorism, or other homeland security incident, as the terminal is a main natural gas supplier on the East Coast.

About IVC

Based in Newton, MA, IVC delivers a broad range of quality IP-based video systems to industrial, commercial and military applications. A key strength of IVC is its ability to develop cameras, enclosures, and software to meet demanding customer requirements.

For More Information

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