Emerson Provides Complete SCADA Solution for Coke Oven Gas and LNG Transmission Pipeline Control

RESULTS
- Complete coke oven gas and LNG pipeline is monitored with SCADA system surveillance
- SCADA system data can be monitored and collected for LNG liquefaction plant
- SCADA system data and information collected by RTU are accessible by web server
- System provides the foundation for future access by an enterprise management system (EMS)

APPLICATION
Coke gas and LNG pipeline SCADA system

CUSTOMER
Chinese coke gas transmission pipeline operator

CHALLENGE
As gas consumption requirements expand in China, the country searches for cleaner energy sources that can be used within the country. A gas plant in China manufactures coke oven gas and transports it via a transmission pipeline to three control stations for compression and liquefying natural gas into LNG for local distribution. All real-time data and information from the 112 mile (180 km), 24-inch diameter (DN600) gas transmission pipeline has to be collected, archived, and distributed to pertinent parties for reporting and control purposes. An information network system is also required for LNG transmission monitoring and control.
SOLUTION

The entire pipeline control functions at the central control room, control stations, and valve stations are provided by Emerson’s SCADA system utilizing OpenEnterprise™ (OE) software. The three pipeline control stations rely on Emerson’s ControlWave Remote Terminal Units (RTU) while a valve station utilizes the ControlWave Micro RTU. The RTU collects and reports pipeline pressure, temperature, flow, as well as valve monitoring and control. The SCADA system OE software collects this data at the central control room from the RTU for supervisory control of the field instruments and DCS information and data collection from the LNG facilities. The information is then accessible top operations and management via web server. The system will serve as the basis for data access by an enterprise management system in the future.