New York Terminals Achieves Profitable and Safe Operation with Rosemount™ 5900S Gauge

RESULTS
- Improved tank utilization
- Enhanced operational safety
- Minimized manual work, 30% savings per year
- 15% more rapid transfers
- 24/7 on-line availability of accurate and reliable tank data

APPLICATION
Inventory measurements in bulk liquid storage tanks.

CUSTOMER
New York Terminals, located in the New Jersey/New York harbor area, is an independently owned liquid bulk storage facility in operation since 2001.

Thirty-nine above ground tanks, 10,000 gallons-50,000 Bbls capacity, are used for storage of diesel, lube oil, acids, chemicals, and biofuels. Loading and unloading is made by rail, truck, or marine vessels. This terminal supports customers in three states, servicing 30 million people.

CHALLENGE
To stay competitive in a challenging market, a tank terminal must be equipped to minimize manual work to save cost. It is also important to efficiently use tank capacity and maximize transfer rates, all without jeopardizing safety.

SOLUTION
In 2007, an automated system for tank gauging and overfill prevention from Emerson™ was implemented to eliminate manual gauging and enhance operational safety. It was upgraded in 2012 to include Rosemount 5900S 2-in-1 Radar Level Gauges, and high accuracy temperature measurement. Supervisory personnel monitor transfers from the office via TankMaster.net, and communicate by radio with the dock operator.

“Since our terminal is located in the New York metropolitan area, the reliability and overfill prevention capability of the Rosemount Tank Gauging System are fundamental.”
Craig Royston
General Manager, New York Terminals

“The SIL 2 rated automatic overfill alarm system is operating at a very high degree of reliability, meeting requirements stated by safety standards such as API 2350. By loading with confidence, we are saving dock time and manpower.”

1. Rosemount 2240S Multi-input Temperature Transmitter with Rosemount 565 Multiple Spot Temperature Sensor.
The new system allows for higher pump rates and more rapid liquid transfers, saving barge dock time and costs. Due to the increased safety and reliability, it is now possible to utilize more of the tank space by raising the maximum fill levels, which means increased revenue.

The automatic system is more accurate than manual measurements, and tank data is always available independent of weather conditions or time of day. This eliminates the need for tank climbing and hand-dipping, thereby reducing operator risks.

Craig says: “When I started to work here before having our radar system, unloading a barge into our tanks required one person for the entire operation, and two more during filling the top third of the tank. One made visual observations from the tank top, and one was adjusting pump speeds via the tankside valve. Now we load at least 15% faster, saving 30% on manhours for the extra two resources which can be utilized for other work. With 60 barges/year, and a saving of eight manhours per barge, the total saving is 480 manhours/year.”

Better tank utilization increased operation efficiency, providing 24/7 online customer access to tank data and reports. This enables better customer service giving the terminal a great advantage over competition.

RESOURCES

Rosemount Tank Gauging System
EmersonProcess.com/Rosemount-TankGauging

Rosemount Tank Gauging System Safety
EmersonProcess.com/Rosemount-TankGauging/Safety

The Complete Guide to API 2350
EmersonProcess.com/siteadmincenter/pm%20rosemount%20tank%20gauging%20documents/00821-0100-5100.pdf

We experienced major productivity improvements with the automated tank gauging system.