

One Million Gallons Optimized at Fertilizer Wholesaler

Granite City Terminal, LLC

Granite City Terminal, LLC is a wholesale fertilizer warehouse located on the Mississippi River in Granite City, IL. Since 2000, numerous varieties of fertilizer have been supplied to farms across the United States. The company provides an extensive array of products and services aimed at optimizing crop productivity, with a particular focus on dry fertilizer and Urea Ammonium Nitrate (UAN).



Applications:
Liquid Fertilizer

Market:
Agriculture

Challenge

Granite City Terminal was searching for a solution to precisely gauge the level of Urea Ammonium Nitrate (UAN), a fertilizer meant to maximize crop yield, in their 40-foot tall, one-million-gallon tank. The existing technique, which involves using a weighted string as a dip stick to manually measure the UAN level, has proven to be unreliable and inefficient. There is also a risk to workers' safety when they climb the steps leading to the massive tank.

"We had to climb up a steep staircase to reach the top of our one-million-gallon UAN tank every time we checked the fertilizer level," said Melissa, Terminal Manager.

Granite City Terminal's goal was to implement a process and user-friendly system that would remotely monitor their inventory levels. Their primary concerns were reliability, accuracy, efficiency, and safety.



Solution

In 2023, Granite City Terminal installed the TankScan TSR1000 long range non-contact radar tank monitoring system on their Urea Ammonium Nitrate (UAN) tank in Granite City Illinois. The remote monitoring system leverages existing wireless cellular infrastructure and a cloud software application to eliminate large startup and setup costs associated with typical remote monitoring systems. The install requires screwing the monitor into a 2" port on the top of tank and plugging in the battery. The cloud application is setup remotely and offers unlimited users, historical trending, and email/text notifications.

The tank levels are viewed from field operator's cell phone or from a PC at a remote location. The system is cost effective due to its use of existing infrastructures through internet connectivity, internet browser, email, text message and cloud compute. The user is provided with accurate readings to the devices he already owns, understands and supports.



Results

Granite City Terminal has seen numerous benefits from remote level monitoring including:

- Reduced labor and overhead associated with trips to the warehouse
- Improved reliability of their facility operations with remote tank level visibility
- Improved confidence and reduced environmental risk with automated notifications
- Improved safety by eliminating the need to climb a one-million-gallon tank

“The install process was very simple, and the ease of use has turned out to be a great opportunity for monitoring our large tank”, said Melissa.

