Case Study

TankScan | Powered by AquaPhoenix

TankScan Helps National Radio Platform Avoid Generating Dead Air

Applications:
Fuel Inventory

Market:
Power Generator

One of America's largest free broadcast and internet radio platform that reaches 9 out of 10 Americans.

Challenge

Dead air is the bane of broadcasters everywhere. Yet, when an ice or powerful spring storm hits, often, so does a power outage. One of the largest national free broadcast and internet radio platform relies on back-up generators at its facilities nationwide to keep its airwaves active during inclement weather. The back-up generators run on fuel, so it's crucial to monitor the inventory level to ensure there's enough fuel to power the generators during an extended power outage.

Previously, the broadcast platform manually monitored fuel levels, requiring employees to climb on tanks, read a gauge on the side of each tank and report the measurement back to management on a weekly basis. This inventory management method can be extremely dangerous when the weather is at its worst, so the broadcast platform wanted a safer, more reliable way to gain visibility into the fuel inventory levels at its facilities across the country.

Solution

The national broadcast and internet radio platform enlisted the help of TankScan in 2018. The broadcast platform installed TankScan TSU1000 monitors on 300 fuel tanks at its facilities nationwide and plans to deploy additional units in 2019. The TankScan TSU1000 ultrasonic monitoring system features an inclusive 4G LTE cellular tank level solution that provides remote level monitoring of deployed tanks, totes and containers.

The non-contact ultrasonic level sensor is fully integrated into the battery-powered device, which can be installed in locations where network power and connectivity infrastructure are not available. The monitor has a durable weather-proof enclosure and long battery life making this solution ideal for use in a broad range of tank applications.

The TSU monitoring system provides tank level information anywhere an internet connection is available - via computer, tablet or smartphone. The monitor collects data regarding the fluid level in the broadcast platform's fuel tanks and sends it to the AquaPhoenix Intelligence Platform (AIP) web-based monitoring application. AIP sends text message or email alerts to the appropriate employees when inventory drops below a pre-determined level, allowing them to avoid a costly run out. AIP also allows TankScan to remotely monitor the health of the wireless tank monitors in the field, ensuring that its TankScan monitors are always online and operating at the best possible level.

Results

In late January 2019, during the coldest arctic outbreak in the last two decades, temperatures in Minneapolis reached negative 33 degrees. The cold weather forced the broadcast and radio platform to run one of its generators two nights in a row. The generator started promptly at 5 p.m. and ran until about 9:45 p.m. The following morning, the engineering manager started getting emails from TankScan notifying him that their fuel tank was critically low. The engineering manager automatically assumed it was an error with the TankScan's system. Later that morning, he was shocked to find the ground surrounding the tank soaked with fuel, which meant the TankScan reading was correct.

The system runs with two floats that turn the pump on and off to pump fuel from the fuel tank to a belly tank when the belly tank falls below a certain level. However, one of the floats got stuck in the 'on' position, allowing it to continue pumping fuel into the belly tank was full, emptying the fuel tank completely. This caused approximately 250 gallons to leak outside through a vent. Thanks to the alerts he received from TankScan, the engineer was able to identify the issue early enough to order 550 gallons of fuel to be delivered that same night.

Through using the TankScan monitoring system, the national broadcast and radio platform is able to:

- Use the intelligence to optimize business decisions around operations and logistics by knowing when a tank needs service.
- Plan fluid deliveries based on the latest information to insure used fuel is replenished.
- Reduce labor and transportation costs associated with manual tank measurement.
- Improve safety by eliminating the need for employees to climb on top of fuel tanks to get an accurate measurement.

Most importantly, by using the TankScan monitoring system, the national broadcast and internet radio platform avoids the embarrassing incidence of dead air during a power outage.

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