

## OLEUMTECH LIGHTNING-FREE AUTOMATION DESIGN HOLDS TRUE TO FORM

### CHALLENGE

Provide a wireless tank monitoring solution at locations where the chance of lightning damage is an all too common concern.

### BACKGROUND

On a small tank farm consisting of four, 15 by 12 foot, 300-barrel tanks equipped with OleumTech Wireless Level Transmitters/Sensors in South Central Kansas, a lightning strike had damaged one of four tanks. The damage was a large crack in one of the tanks that went 7 feet down and cut across.

Since proper installation procedures and grounding practices were followed, excessive damage was avoided. The customer reached out to PetroPower, an OleumTech Certified Reseller, expecting the Wireless equipment to be “cooked” and that they needed a replacement. All OleumTech Transmitters/Sensors on location, including the unit struck by lightning, continued to operate as normal even after the event had occurred. All the transmitters and sensors on location, including the unit in the tank that was struck by lightning, were isolated and continued to report levels flawlessly. The tanks were also grounded.

### RESULTS

Wireless automation removes the path of buried copper cables, therefore, eliminating the path for induced power surges. The customer has several hundred OleumTech Transmitters in the region and is fully committed to wireless, especially after this event. Wireless solutions provide assurance that when lightning strikes, it does not put your operation completely out of commission. All the proper installation and grounding procedures were also followed, which minimized the damage when lightning struck.

### BENEFITS/ADVANTAGES

- OleumTech provides an economical wireless solution to the end user wishing to monitor the levels of the tank farm
- Extremely flexible and economical system utilizing one OleumTech Wireless Gateway and four OleumTech Wireless Liquid Level Sensors
- Lightning damage on a Wireless Application is no longer a threat to the entire pad as it would be with Wired Applications
- Ability to provide simple solutions to common concerns such as Lightning Damage
- With a direct lightning strike the only risk to the equipment is losing a wireless instrument, no effect on any other equipment on location unlike with wired applications



### EQUIPMENT ON LOCATION

#### Liquid Level Transmitter – (LM5000-WDG)

4 - Non-LCD Liquid Level Transmitters

#### Liquid Level Sensor – (RM192F20, UM192F20)

3 - Rigid Standard Connector with Dual floats

1 - Ultra-Flex Standard Connector with Dual floats

#### DH2 Wireless Gateway – (WG-0900-DH2)

1 - The DH2 Wireless Gateway is the primary collection point for the data from the Wireless Liquid Level Transmitters.