Kistler-Morse®

Sonologic Products

case history

Market: Dairy Industry Co-operative

CUSTOMER

San Joaquin Valley Dairymen is a farmers dairy co-operative with plants in Turlock and Las Banos, CA.

PROBLEM

The Turlock facility needed a method to monitor levels of skim milk powder kept in two large silos and two small surge bins. Previously, the site had experimented with radio frequency probes to monitor product levels in the silos, "but they didn't work very well," according to Brian Braun, Maintenance Manager at Turlock.

APPLICATION

Kistler-Morse intalled Sonologic ultrasonic level detectors atop the two 40-foot tall, 136,000-lb. capacity powder silos. Shaped with a cone bottom, these stainless steel silos are equipped with bin vibrators to prevent bridging in the silos. Sonologic level detectors were also intalled on the two small surge bins. The ultrasonic devices provide 4-20 mA outputs that interface with programmable local controllers (PLCs) that control the filling of the silos and surge bins.

BENEFIT

According to Braun, the Sonologic devices are accurate within four inches of actual product levels on the powder silos and within one inch on the small surge bins. "Our whole system is automated," Braun says, "We know how much powder is in each silo whenever we decide to take inventory. We can calculate the number of pounds in each one. Our surge bins are mounted above filling machines, and we use the ultrasonics to control the filling operation."

CONCLUSION

Braun says the Kistler-Morse equipment has been reliable under conditions that reach 125 degrees F in the summer. "I don't have to worry about them. In the two and a half years I've been here, we've only received one erroneous reading," Braun says, "What happened is the moisture built up in the silos so that stalactites grew on the face of the unit. We just had to clean off the face and put them back in."

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