MONITOR

ON THE LEVEL

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Cost savings through better inventory control

In our current economic conditions most companies are looking for ways to cut costs. One way is through better management of materials in your storage silos. Many companies still use just point level sensors, like a "paddle unit", to let them know when the material in the silo is high or low. Besides detecting high and low levels, a continuous level sensor can actually help cut costs and even increase personnel safety. Although a continuous level inventory measurement system sounds like a good idea, the inclination right now may be that "a point level works ok, no need to spend any money to upgrade or change." So how does one justify the extra initial cost of a continuous level system?

A company in Crystal Lake with 13 silos who provides pre-blended masonry products and automated mixing stations to construction sites or as they like to call it "mortar at a push of a button" was looking for a way to better control the inventory levels of their raw materials instead of having to do a "visual". They are very proactive in trying to find ways to make themselves more cost-efficient and effective on all levels of operation. After some research they decided to go with the SiloPatrol® cable-based smart sensor (SMU) with the SiloTrack™ inventory management software from Monitor Technologies. Even though the system cost more than they initially were willing to spend, they were able to justify the expenditure because of the added benefits of time saved to manually measure the material levels and for the personnel safety reasons. Now with automatic or on-demand readings, they have better control of when they need to re-order raw materials and when the silos are getting full during refilling to prevent the downtime and clean-up costs of an over-filled silo. Plus, personnel make a lot fewer trips up the silos.

Their initial purchase was for 6 SMU's and the SiloTrack software. Once they realized the value of the continuous level measurement

system, they were able to justify the purchase of additional SMU's for more of their silos.

Other features that they have come to appreciate about the SiloPatrol is the simplicity of installation (including wiring and set-up) for the sensor and the software, that the software works with the current PC on their desk, the sensor's compartmental isolation of the electrical and mechanical components which eliminates much of the dust from going into the electrical area, and the ability to replace the sensor's wiper and brush that cleans the cable without having to actually cut the cable for servicing. They also mentioned that technical support has been very responsive. They once had a computer board issue that caused software re-installation problems and technical support spent the time to talk them through the issue and shared knowledge for future prevention.

The SiloPatrol SE inventory management system is the second edition of the industry-leading cable-based smart sensor system that is designed to handle some of the harshest and most dynamic conditions imaginable.
The SiloPatrol SE system incorporates state-of-the-art sensors with a wide choice of operator interfaces to fit all types of situations.
For more information, please visit
www.monitortech.com/product_conti.shtml ▼

MONITOR NEWS

Check out www.monitortech.com/PR/pnewsarc.shtml for articles like ...

>> RF Capacitance Level Sensor Provides Maximum Reliability & Stability

>> Avoid Obstructions When Installing Guided Wave Radar Sensors (*see backside*)

>> View our entire list of Technical Articles, Whitepapers & Case Studies at **(http://www.monitortech.com/papers.shtml)**

INDUSTRY NEWS

>> www.grainnet.com
>> Industry News Center at www.powderandbulk.com (http://www.powderandbulk.com/pb_services/news_center/publish/)

TRIVIA

1st Quarter Q:
What are Saturn's rings mostly composed of?

Win an item by E-mailing us the correct answer at: monitor@monitortech.com

UPCOMING SHOWS

NPE2009 produced by SPI

June 22 - 26, 2009
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www.npe.org
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We invite you to stop by our booth at NPE2009: The International Plastics Showcase. Register online as our guest to receive $20 off standard online registration fee. To Register, Visit: http://www.NPEDiscount.org/519127

Tech Tip : Avoid obstructions when installing a guided wave radar sensor

Guided wave radar instruments, like Flexar®, use a cable as a wave guide or antenna. The microwave energy pulses down the cable antenna and reflects off the material surface. The reflected pulse travels back up the antenna to the transceiver.

Obstructions near (within ~12") of the cable antenna have a high probability of interfering with the microwave energy measurement pulses. Just think of attempting to make a cell phone call while standing inside a metal doorway. Sometimes it works but most times it doesn't.

Some obstructions result in crazy reflective echoes. These reflections can exceed the strength of that from the material surface. To cancel such large reflection an irritating and often substantial dead zone has to be created along the length of the wave guide cable antenna. Not good.

Vessel Exterior

Vessel Interior

Obstructions also cause signal degradation. Like the cell phone example, energy from the wave guide cable can be bleed off onto the obstruction. Because the Flexar is measuring and not cooking the silo contents the emitted energy level is rather limited. If enough of this energy is bleed off there is a possibility that insufficient energy will remain to make a viable reflection.

Pictured above is one of the most common examples when it comes to interfering obstructions.

For unknown reasons the factory provided application and mounting recommendations were disregarded and the Flexar instrument was mounted to the pictured stub nozzle.

Under the best of circumstances the height of a stub nozzle should not exceed the inside diameter. In this example that guideline has been completely violated. As shown, the nozzle protruding above and below the roof line well exceed the inside diameter.

This resulted in crazy pulse reflections which were so strong that the level signal would not follow the material level. The short term solution required a six foot dead zone to be created on the top portion of the vessel.

This meant the customer lost the ability to monitor the material in the upper six foot section of the vessel. Not good.

The long term solution is to move the Flexar to the center of the forward plate which sits atop a large nozzle which better conforms to the mounting guideline.

For more Tech Tips, please visit our blog at . . .
http://monitortech.typepad.com

Andy Bowman
Technical Services Manager

Monitor Marketing Survey

Thank you to everyone who had the opportunity to complete the Monitor Web site & Marketing Activities Survey and **congratulations** to the winners of the digital picture frame drawing.
All of your feedback was really appreciated.

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SecureCare℠ PROFILE

NAME: Jennifer Zedan
TITLE: QC Manager
DEPT: Quality Control
ANIV: June 28, 2001

Current Project(s):
Jennifer has been deligenty overseeing / administrating the ISO 9001 quality system for Monitor Technologies.

Q & A:

Q: Where are you from originally?
A: Elgin, Illinois.

Q: What is your favorite food?
A: Pizza.

Q: What customer item reminds you most of Monitor?
A: Cereal.

Q: What is the best aspect of working at Monitor?
A: Definitely the people, eve ryone goes out of their way to help each other.

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