

in dynamic, dusty setting

Flexar<sup>®</sup> guided wave radar thrives

# Practical solutions...at every level!

MONITOR NEWS

## In This Edition:

- Flexar® Thrives in Dynamic, Dusty Setting
- >> Tech Tip: Verify chemical characteristics of target material
- Featured Product: RF Capacitance Level Sensors
- Monitor Employee Profile
- >> Recent Print Ads

## Other Information:

- >> Technical Tip article regarding "How to detect leaking or broken filters with a triboelectric monitor" (more)
- Solutions for plugged chute detection (more)
- >> View our entire list of Technical Articles, White papers and Case Studies (more)

Check out www.monitortech.com for the full story.





A midwest-based grain elevator and storage company had four receiver hoppers that they were interested in having level sensors installed in. When they first get in a load of grain or soybean, they place it in the receiver bins while a sample of the load is being tested (for moisture content, etc.). Once the product is cleared it then gets placed in their regular storage silos. As you may imagine, during peak times product is going in and out of these receiver bins at a rapid pace. Some type of level measurement system that could keep up with this dynamic situation would be most useful. Plus, the soybean and grain being moved around so quickly caused some highly dusty conditions which needed to be taken into consideration.

For the rest of their storage bins they were already using  $\text{SiloPatrol}^{(\!\!\!\text{B}\!\!\!)}$  cable-based level sensors linked to  $\text{SiloTrack}^{\text{TM}}$  inventory

The Flexar<sup>®</sup> guided wave radar sensor is a continuous level measurement system using TDR (time domain reflectometry) principles where radar pulses are focused down to the material surface by the unit's wave guide (a heavy duty cable) and the time-of-flight of the pulse reflection back to the instrument electronics is directly related to the empty distance in the vessel and the material level. Guided wave radar technology has proven successful and an excellent choice for most powder and bulk solids applications as well as a multitude of liquids applications.

Benefits of Flexar<sup>®</sup> include no moving parts for less wear and tear; the employed technology allows the sensor to be virtually unaffected by and reliable in dusty conditions; no field calibration is required to provide easy installation and setup; and a universal power supply for high or low voltage options.

The Flexar sensor can also be supplied with a choice of outputs. The analog 4-20mA output version can be interfaced to your existing PLC or DCS and the "Smart" RS-485 output version is compatible with the PC-based SiloTrack<sup>TM</sup> Inventory Management software. The SiloTrack software automates level monitoring and report generation, sends email notifications to suppliers or corporate locations and allows remote viewing of material level inventory.

For more information, please visit www.monitortech.com/product c f flexar.shtml

- >> www.grainnet.com
- Industry News Center at www.powderandbulk.com
- Storage Industry Zone at www.powderbulksolids.com
- Latest News at www.waterandwaste water.com

## TRIVIA

# 2nd Quarter Question:

Now that the National League baseball team won the 2010 All-Star game, what year was the last time the National League team won?

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



management software. Since they have two locations, they were able to monitor the inventory the silos for both locations from the main office using the SiloTrack software. The SiloPatrol sensors worked well for their regular grain storage silos; however, for the receiver bins they needed something that could provide "real-time" measurements besides work with their inventory software and be reliable in extremely dusty surroundings.

The Flexar<sup>®</sup> guided wave radar system was suggested to them because it matched all of the criteria. To make sure that everything was going to function properly, the company tested out one Flexar unit at first. After a period of time, they determined that the Flexar sensor was able to reliably do everything they needed so the company purchased Flexar sensors for the rest of their receiver bins.

# **Tech Tip:**

Verify chemical characteristics of target material before choosing a level sensor

or <u>www.flexar.info</u> or call us in the USA at 800-766-6486 or from anywhere at

630-365-9403. Also, check out our Level

http://monitortech.typepad.com

Measurement blog at

ľ		Be	of the Elements										B	°c.	N.	0	VIA F	Ī
H	6	Ϋø	18	r/18	18	•8	115	_	- 11 -		в		Ň	31	5	s	Ċ,	1
Ĩ	ĸ	Ċ.	9s	ĩ	¥.	Ċr	2n	ĥ	Ču.	٤,	è.,	Za.	ġ,	ŝ	Å.	S.	B,	
i	ь	è.	`۲	4	Г.	e No	ì	Hu	î î î î	г, И	69	Ès.	e In	y Sn	25	i.	3	ľ
ð	8	e Bz	ς. Γ	к	7 17	w	Re	Ö5	'n	а Н	ĥ.,	n. Hu	"TI	Pb.	a,	Po	ិអ	Ī
1	1	Hc Rc	e sée	er Fil	er Ha	in Sg	i. Ka	э Нs	ii Wt	н: 110	111	0 112	11 113					

One of our sales representatives received a call from a customer that had purchased one of our RF capacitance level probes about four years ago. Recently they were having some issues and they decided to take a closer look at the probe. Much to their surprise when they removed the unit they discovered that the once mighty stainless steel probe was gone! It turns out that the probe was installed in Chlorine water, and while it took four years the Chlorine water had eventually dissolved the probe.

This is obviously a very infrequent occurrence with our typical customers but I feel that chemical compatibility issues are something that we should be cognizant of. I am sure that most customers are aware of things at their facilities that may be chemically aggressive, so often they will bring it up first. Also, there are many "chemical resistance charts" available on the web that will show chemicals and how they effect materials they may come in contact with. One chart I use rates things on an alphabetic scale with "A" having "No effect-Excellent" to "D" Severe Effect-Not Recommended. I reference this chart when I get a question concerning this issue, most of the time our products will work great with the majority of the materials we "target" with our level controls so it is not a problem.

If you have any questions concerning an application please give us a call, we will be happy to work with you to find a practical solution.

For more information on **TrueCap**<sup>®</sup> **RF Capacitance** level sensors , please visit: http://www.monitortech.com/product p rf2.shtml

Please visit our blog at . . . http://monitortech.typepad.com





# Featured Product: TrueCap<sup>®</sup> Model MK-2 RF Capacitance Point Level Sensor



Monitor's TrueCap® Model MK-2 RF capacitance point level sensor is designed to provide a superior and stable sensitivity threshold making it suitable for a variety of powder and bulk solids, liquid and slurry applications. The **available split architecture design** is ideal for applications involving high temperature or vibration. The probe and electronics are housed in separate enclosures that are mounted apart for each other. This design removes the electronics from the tough conditions.

For ease of use, the Model MK-2 has **push-button calibration** and sensitivity selection as well as a built-in automatic temperature compensation circuit that combines with the MK-2's microcontroller to provide automatic calibration compensation yielding the most stable and reliable RF capacitance point level sensor available today. In addition, the Model MK-2 provides automatic immunity to material build-up on the probe by its driven shield design and contains a universal power supply of 48-240V AC / 24-48V DC.

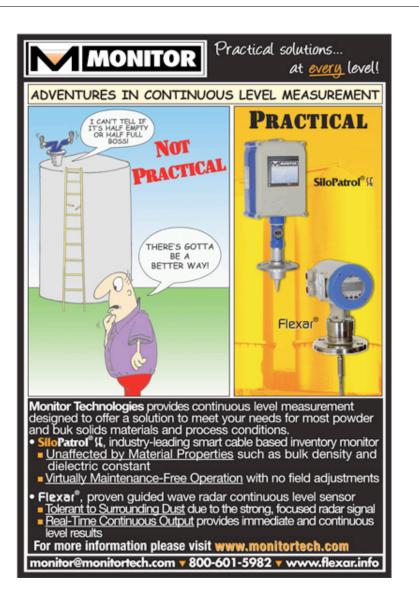
The Model MK-2 can be combined with the **optional remote calibration module**, which allows you to interface with the MK-2 from up to 1,000 feet (305 m) away from the sensor using an RS-485 connection. The module can be placed near other control equipment. This is ideal if your materials change often and the material characteristics are so diverse that re-calibration is required. It is also useful if your procedures require probe functionality verification on a regular basis.

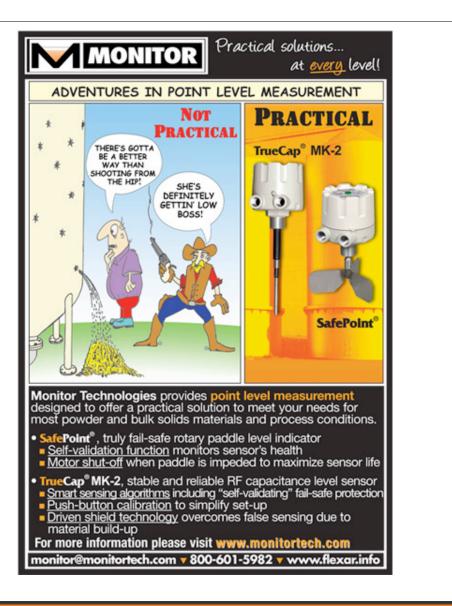
Monitor offers an unmatched product selection of RF capacitance sensors for a large range of applications.

For more information please visit: <u>http://www.monitortech.com/product\_p\_rf2.shtml</u>

# **Latest Print Ads**

Below are examples of Monitor's recent ads focusing on our new positioning statement "Practical solutions...at every level!". The cartoons were drawn by Monitor's Engineering Manager - Jeff Cole.







# EMPLOYEE PROFILE

## Name: Laura Smathers

DEPT: Production

ANIV: August, 2006



### Interview

**Q:** Where are you from originally? **A:** Canton, North Carolina (about 20 miles west of Asheville).

**Q:** What is your favorite food? **A:** Beef tips with mushroom gravy.

**Q:** Favorite sports team?

A: Carolina Panthers.

**Q:** Hobbies outside work? **A:** Reading, gardening.

**Q:** Favorite vacation location



4W320 Keslinger Road P.O. BOX 8048 Elburn, IL 60119-8048

800-601-5946 PH 630-365-9403 FAX 630-365-5646

www.monitortech.com monitortech.typepad.com www.flexar.info monitor@monitortech.com (Have gone to or would like to go to)? A: The North Carolina mountains.

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

**Q:** Current & previous positions you have held at Monitor? **A:** I am currently Production Controller/Logistics Supervisor and formally a Sales Associate.

Q: What is the best aspect of working at Monitor?A: I really enjoy my job and the people that I work with.

Q: Current Projects? A:I have been working with the Training Specialist on shipping process changes. We have separated export and domestic shipments into two separate job functions.

© 2010 Monitor Technologies, LLC. All rights reserved