



**ADVANCED CONTROL SYSTEMS INC.**

A division of Advanced Concrete Technologies

Phone: (603) 373-6400; Fax: (603) 431-5547

Email: [acscontrols@concretebiz.com](mailto:acscontrols@concretebiz.com)

139 Flightline Road, Unit 2, Portsmouth, NH 03801

[www.acscontrols.biz](http://www.acscontrols.biz)

## Visit Us This Winter!

At the **World of Concrete**, Las Vegas, Jan. 23 - 26, 2007, Booth #N222, or at the **Manufactured Concrete Products Exposition (MCPX)**, Orlando, FL, Feb. 22- 24, 2007, Booth #1579, near our parent company, Advanced Concrete Technologies (ACT).

## New! DK850 Digital Scale Indicator

New ACS control systems will feature the new DK850 Digital Scale Indicator technology. The DK850 provides a Windows-



based control interface that allows easier programming, parameter changes, and calibration adjustments. Now, make all necessary control adjustments with point-and-click ease on your plant PC. The DK850 is also available as a retrofit.

## Laser Accuracy Now Available!

Now, monitor the exact levels in your holding hoppers and aggregate bins with new laser probe technology from ACS. This easy retrofit can dramatically improve the accuracy of material inventory tracking and ease the monitoring of in-process batches. The laser-based probes can be mounted far from materials and mixes to avoid contamination, yet still deliver accurate real-time levels to your PC control screen. The new system makes it easy to keep concrete fresh, order precise quantities of concrete for important color blends, and initiate and monitor all this from a special PCS control screen. Call (603) 387-6316 to learn more.

# Update

WINTER 2007

## New Controls Yield Improved Quality, Consistency, and Efficiency

"The best advertisement we can have is a great looking product sitting out on the job site," explains Scott Boughner, General Manager for Northern Concrete Pipe, Bay City, MI. "When a customer calls us and tells us how much they like the improvements we have made in product quality and appearance, that's a great call to get," he adds.

Northern Concrete Pipe has been a leading provider of precast, reinforced concrete products since 1958. The company, which serves Michigan, Ohio, and Indiana, produces round and elliptical pipe, manholes, catch basins, box culverts, and Stormceptor® storm water management products at its plants in Bay City and Charlotte, Michigan.

The company's Bay City plant features a three-mixer batching operation that was installed in 1994 and produces both wet and dry cast mixes that output through five discharge gates. The original control system that came with the plant had reached its end of life and was no longer supported by the manufacturer. In recent years, the controls had become increasingly problematic and required the attention of three workers, one each for the three mixers. These workers were also responsible for overall quality control.

"We had been experiencing cosmetic 'bugholes' on our pipe products related to control issues, so last winter we decided we would make a decision on a new control system," Boughner relates. "I had been researching controls for a number of years, attending trade shows and talking to other plant operators. I really had my eye on Advanced Control Systems (ACS) and after speaking with several ACS users, I knew they were the right choice for us. They offered the options, the service, and the integration we needed. Their price was competitive, but you can't just go on price—we wanted a system that could grow with us for the next 10-20 years. ACS gives us that."

In July 2006, ACS engineers installed a new PCS Programmable Control System at Northern Concrete Pipe's Bay City plant. The ACS system controls all three mixers, five discharge gates, as well as weight-based measurement of 12 aggregates, 4 cements, 8 admixtures, three water sources. The system features a remote wireless call system that enables the operator to have a batch ready in advance, eliminating wait times.

The installation of the ACS control system took about four days. When the batching plant came back on line, the results were immediate, according to Boughner. "The quality improvement was like night and day," he says. "We've improved quality about 80 percent. The bugholes disappeared. The best thing that happened was we began getting calls from customers. They were wondering what we were doing differently—that made us feel good. Even though the product is going to go in the ground and be covered, the customer cares what it looks like and associates appearance with quality."

Along with improved quality has come a reduction in the time spent managing the batching operations. "We no longer need all three of our QC folks watching the



*Under control - Northern Concrete Pipe GM Scott Boughner, left, and President Bill Washabaugh Jr. found the right recipe for total plant control in the ACS Programmable Control System (PCS). Improved accuracy, consistency, and reliability are resulting in better quality and happy customers.*

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mixers," Boughner notes. "The new controls have freed them to attend to other, more productive work. They can check products, run cylinder tests, and other work without having to worry about water-cement mixtures and other batching issues."

Consistency is king when it comes to repeatable mixtures and quality. The programmable ACS controls allow Northern Concrete Pipe to save an almost unlimited number of mix recipes and stores the history of each batch produced. These features allow for repeatability of even the most complex mix recipes with the push of a button. The batching history feature helps the company compete for government contracts, which often require the availability of detailed production records.



**Proof on site – Virtually overnight, the PCS control system eliminated "bughole" cosmetic defects from pipe and other products through improved component proportioning accuracy and batching consistency. Customers noticed the improvement immediately.**

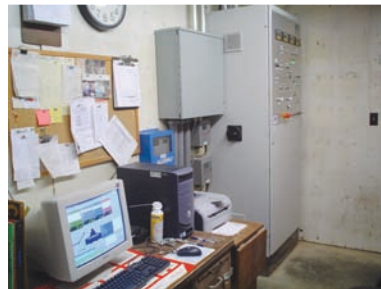
"Our investment in the ACS programmable controls is going to pay back in very little time," Boughner emphasizes. "Payback is coming in terms of increased tonnage, reduced man-hours, and improved quality and consistency. No matter what the weather, the ACS moisture control features account for anything Mother Nature throws at us. I'm not an easy guy to win over, but I would recommend this control system to anyone." ■

## Hanson Pipe & Products Partners with ACS for 5 Plants in Southeast

Earlier this year, Hanson Pipe & Precast's southeast region chose ACS to replace five control systems. The old control systems were built in-house by the previous plants owners. These systems required a dedicated technician to travel between the plants full time to keep the systems up and running. Over the years, as production changed, the plants had to add manual sub panels to increase capabilities. The legacy control systems required constant monitoring for errors and breakdowns.

ACS engineers visited each plant, specified the systems needed based on production systems and demands, then designed and delivered the first of these five new control systems in less than six weeks to Hanson's Northside Drive plant in Jackson, Miss. During the design of this first control system, ACS partner Advanced Concrete Technologies (ACT) also delivered and installed a new HPGM 2250 planetary countercurrent mixer at the same time.

"ACS got us back up and running really fast," says Plant Manager Bill Poole. Down-time for implementation of the control and mixer took less than 7 days. The Northside Drive plant produces approximately 50,000 tons of round and arched pipe each year. "The new system is fast, automatic, and we can call orders from the floor, which saves time and eliminates someone having to baby sit the mixer."



**Pre-tested ACS controls ensures fast installation and start-up at Hanson's Jackson plant. New controls replaced messy legacy sub-panels with easy-to-use graphical point-and-click terminal and manual back-up panel.**

The new ACS controls and ACT mixer are providing these benefits:

- Eliminated dedicated mixer attendant
- Improved pipe quality
- Advanced paperless recordkeeping helped plant gain certifications required for state contracts
- Eliminates down-time
- Provides fast recipe recall
- Improved safety

"The recordkeeping accuracy with the new ACS control system definitely helped us become NPCA certified," Poole notes.

"Certification has helped us, in particular, in the Alabama market. We periodically ship pipe into Alabama from the Jackson Northside Plant so that certification helps us there."

The self-contained ACS Programmable Control System (PCS) fit easily into the plant control room. The PCS graphical display provides intuitive, point-and-click controls. The simple reliable control system replaced a patchwork of legacy control sub-panels and chaotic wiring.

"We love the fact that we can recall mix recipes and complete batch history quickly and it eliminates a lot of paperwork," Poole concludes. "The integration between the ACS controls and new ACT mixer made the whole installation process smooth and painless." ■

## Send Your Staff Back to School

Reduce downtime, cut service costs, increase operator knowledge, and boost problem-solving skills with the new **Plant Control Workshop** offered by Advanced Control Systems (ACS). This multi-day program is a comprehensive training program tailored to meet the unique needs of your operation. This hands-on workshop will teach your plant operators and mechanics the art of troubleshooting, problem solving, basic electrical comprehension, and computer control skills.

For one site or multiple plants on a regional basis, this targeted learning experience will pay for itself in savings on service, downtime avoidance, production optimization, and much more. For workshop information, please call (603) 387-6316 or visit the ACS web site today: [www.acscontrols.biz](http://www.acscontrols.biz). ■

**FAST FAX RESPONSE FORM:**

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Products produced \_\_\_\_\_

Planned equipment acquisition:  ASAP  3-6 months  6-12 months  12+

[www.acscontrols.biz](http://www.acscontrols.biz)

Areas of interest: (check all that apply)

- PCS Windows-based Control Automation
- Automatic Microwave Moisture Metering
- Aggregate Moisture Probes
- Integration of Existing Controls
- Other \_\_\_\_\_

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