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BEAMEX CASE STORY

WATER AND WASTEWATER FACILITY
**SECURING SAFE,
SCALABLE, AND
TRACEABLE CALIBRATION**

Experience a better way to calibrate

SECURING SAFE, SCALABLE, AND TRACEABLE CALIBRATION FOR A WATER AND WASTEWATER FACILITY

Kevin works at a water and wastewater utility in the southeastern United States. The utility was founded in 1968 and today provides essential drinking water and wastewater treatment services to around 250,000 people.

Following his promotion to Instrumentation Superintendent at the utility's Electrical Systems Department, one of Kevin's first tasks was to identify and implement a calibration software database. "With a computerized database we would be able to do away with the time-consuming and error-prone system of recording calibration data with pen and paper before entering it into an Excel spreadsheet," he explains.

BEAMEX CHECKS ALL THE BOXES

Kevin's first step was to contact the International Society of Automation for help obtaining a list of calibration database software companies. Trimming down the list of more than 25 potential candidates to a top three took some careful online research and multiple phone calls with sales representatives.

"After this process it was clear to me that Beamex was the top choice as our partner for calibration excellence because their offering best matched my checklist of requirements," Kevin continues. "First and foremost, I wanted software that was scalable so it can grow with our needs. I also wanted to be able to reduce the number of field calibrators in use, minimize the human error factor, and reduce the time needed for calibrations. Being able to generate traceable calibration certificates was also a must."

THE JOURNEY TO TIME-SAVING DIGITAL CALIBRATION MANAGEMENT

Prior to joining the Beamex calibration ecosystem, the water and wastewater utility was using Microsoft Excel to manage the calibration data generated from its more than 1,200 instruments.

"The first step was to meet the Beamex sales rep to review our existing calibration management system. He recommended a Beamex CMX Calibration Management Software database with 5,000 instrument positions," Kevin explains.

Alongside this, he recommended the Beamex MC6 Advanced Field Calibrator and Communicator because, in Kevin's case, it would replace four existing field calibrators per technician that needed annual calibration. The MC6 was enhanced with a HART communicator that would replace four separate, outdated HART communicators. Kevin also chose to

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Kevin,
Instrumentation Superintendent

protect his Beamex equipment with a Care Plan contract covering annual recalibrations, repairs, and much more.

The MC6's communicator mode is designed to communicate with fieldbus instruments, allowing technicians to calibrate, configure, and trim instruments without having to carry additional equipment in the field.

"Implementing CMX and the MC6 to create a digital calibration workflow saves us about 65% to 75% in labor time and removes much of the human error factor in the process. On top of that we get a traceable calibration certificate that is easy to read and can be submitted to regulatory agencies."

With a fully digital workflow, the utility was ready to join thousands of other Beamex customers worldwide who experience a better way to make a safe and less uncertain world.

ALL SYSTEMS GO - ALMOST

The utility had ten plants linked to its primary control computer system. The CMX database needed to be installed with multiple key licenses for logging in. "Senior management had plenty of questions that needed answering before they gave the green light to purchase the equipment and software from Beamex," Kevin explains. "Beamex helped me get the answers I needed through support resources, videos, webinars, and information from their website."

Once the CMX software and license keys were delivered, the utility Controls team uploaded the CMX software to their control system network and installed a dedicated PC in Kevin's office to run CMX. "I had a lot of data to enter, including plant structures, positions, devices, functions, and calibration

Water and wastewater facility

CALIBRATION SOLUTIONS

- MC6 Advanced Field Calibrator and Communicator
- Beamex CMX Calibration Management Software

MAIN BENEFITS

- Scalable, digitalized calibration management solution that minimized human error associated with pen and paper calibration records
- Reduction in labor time required for each calibration
- Improved reliability
- Safe drinking water for 250,000 people

procedures. Finally, after some months I was ready to order two MC6 calibrators and take part in a two-day on-site training class covering CMX and the MC6.”

When the MC6s arrived Kevin had already entered 850 instruments into the CMX database, but he began to get error messages when he started to send the first plant instrument data to the MC6s. “I had made a critical mistake which meant I had to make corrections and re-enter the database changes,” he shares.

THE PLAN COMES TOGETHER

Kevin has had extremely positive feedback from his team of technicians, who are unanimous in their opinion that the MC6 is far superior to their old calibrators. The utility’s operations staff can easily view and print calibration certificates, speeding up the process, and the regulatory agencies that the utility interfaces with have also reacted positively to the change.

“When the Instrumentation Department receives a work order from the Operations Department that an instrument in the process is believed to have failed, we can check the instrument calibration, record it ‘as found’ with the MC6, and send it to the CMX database to create a document,” explains Kevin. “With this document we can easily show whether an analyzer, transmitter, or actuator is behind the problem or if operations need to look elsewhere within the process. For our technicians, it feels great to be able to simply hook up to the instrument in question and get answers fast.”

Today, Kevin’s team of six instrumentation technicians manages over 1,600 instruments in CMX that need annual or biannual calibration. “This change has definitely helped to build trust between our utility and regulatory agencies,” says Kevin. “Adopting the Beamex calibration ecosystem and having Beamex as our partner for calibration excellence has helped us take a big step forward on our digital transformation journey. In my opinion, once you join the Beamex calibration ecosystem you never look back.”

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Kevin,
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FOR MORE INFORMATION

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