

# Beamex Case Story

Total Petrochemicals USA, Inc. (Carville, LA)  
USA



Taking control  
of the calibration trend.

**beamex**

# THE TOTAL PETROCHEMICALS USA CARVILLE, LA SITE IS THE LARGEST STYRENE MONOMER FACILITY OF ITS TYPE IN THE WORLD.

Total Petrochemicals USA, Inc. is a world-scale petrochemical manufacturer with production facilities in Texas and Louisiana. The Carville, LA Site is the largest styrene monomer facility of its type in the world; the plant was built in 1968 and is a 50/50 owned joint venture of Total Petrochemicals USA, Inc. (operator) and Saudi Basic Industries Corporation. The Instrumentation and Controls/Analyzer Department at the Carville site employs ten Technicians and two Analyzer Specialists along with a nested contract instrument technician.

Steve Brown is Analyzer Specialist at the Carville site. He has accumulated 24 yrs of experience in the instrumentation and controls field with the last 6 years here at the Total Petrochemicals USA, Inc. in Carville, LA. Steve's current responsibilities include Analyzer maintenance and calibration as well as being the ISO 9000 / ISO 14000RC program administrator. As the administrator, Steve maintains all calibration records for both of the programs. In addition to using Beamex® CMX Calibration Software in the Monomer Facility, Total Petrochemicals USA is in the process of implementing the calibration management system at their neighbouring Polystyrene Plant.

## The situation

The role of the Instrumentation and Controls/ Analyzer Department is to ensure that calibrations are performed on-time and the records maintained. Their main focus is to ensure that the instrument calibrations performed are accurate and traceability is maintained throughout the life of the instrument. Therefore, calibration as such plays an important role for the business. "We are of a mindset that if your instrumentation does not perform well, your product will suffer," Steve explains.

As a calibration solution, the site utilizes the Beamex Integrated Calibration Solution made of Beamex® CMX Calibration Software and the Beamex® MC5 Multifunctional Calibrators. The



role of the system has changed recently. The system now includes safety critical instrumentation and other preventive maintenance calibrations as well as calibration gases that are used throughout the plant. The CMX provides a simple means of maintaining the calibration gas records. The system provides easy access to relevant data at any given time, as these records can be viewed or printed at auditor's request. CMX is also versatile, as it communicates also with other process calibrators. The Pocket PC feature is especially beneficial. This feature enables the Calibration Gas cylinder inventory to be performed while making rounds without paper and pen. "We are still pushing the envelope with the MC5 to develop more testing processes to assist our department to maintain a technical edge on the rest of the industry," Steve visions. "We recently ran across a problem with a particular type of temperature transmitter. The current reading and temperature simulation signal was extremely unstable. Through the aggressive technical support from Beamex and the transmitter manufacturer, the problem was resolved and our procedures updated to reflect the changes in the calibration methodology," Steve continues.

The site calibrates an array of instrumentation such as CEMS analyzers, LEL monitors, flow, pressure, temperature and level transmitters, in addition to flue gas analyzers and custody meters. Some of the calibrations are performed due to regulatory requirements, but the main objective is to reduce downtime and preventable repairs. In addition to the Beamex Calibration Solution, the site uses SAP® to trigger the calibration work orders.

**“The CMX allows us to see trending data. This alone is important, because seeing the trend will allow us to fine tune equipment that result in a higher tier product”, Steve states.**

### **The solution and main benefits**

The software-based calibration management system has an integral role in the site's calibration process. “The CMX allows us to see trending data. This alone is important, because seeing the trend will allow us to fine tune equipment that result in a higher tier product”, Steve states.

Currently the site is using the MC5 Calibrators with external high-pressure modules, barometric modules and a vacuum pressure module. The calibrators are used to provide and capture precise calibration data on ISO 9001 and ISO 14000RC instrumentation and also the safety critical instrumentation.

Updating the calibration system to CMX was a natural choice for the site. “We were already recording calibration data with an existing Beamex product, so it seemed appropriate that we continue with the next generation from them. I believe that it was a great choice”, Steve explains.

The Beamex system has proven to be a valuable investment. The system has enabled the site to provide documented calibration data for audits. There is even a security level that we created to allow an auditor unfettered access to records. The benefits provide also help for the daily routines. “The drag and drop aspect of the software for loading positions to the calibrator is quick and easy. This reduces the amount of test equipment and paper that has to go to the field”, Steve gives an example.

“From the first time I put the MC5 in my hands, I knew that this was going to be fun. The training that Beamex provided was intense and very rewarding. I still try to stump them from time to time, but their technical support is second to none. They are prompt with resolutions to my problems”, Steve summarizes.



Beamex® MC5 Multifunction Calibrator

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# Case Story in Brief

## Customer profile

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**USA**

### The situation

Total Petrochemicals USA, Inc. is a world-scale petrochemical manufacturer with production facilities in Texas and Louisiana. The role of the Instrumentation and Controls/Analyzer Department is to ensure that calibrations are performed on-time and the records maintained. Their main focus is to ensure that the instrument calibrations performed are accurate and traceability is maintained throughout the life of the instrument. The Beamex system has proven to be a valuable investment. The system has enabled the site to provide documented calibration data for audits. There is even a security level that we created to allow an auditor unfettered access to records. The benefits provide also help for the daily routines.

### Solution

- Beamex® CMX Calibration Software (with Pocket PC Option)
- Beamex® MC5 Multifunction Calibrator
- Beamex® Professional Services

### Main benefits

- Due to Beamex all-in-one calibrators less test devices need to be carried when making calibrations on the field
- Controlling the calibration trend results in higher tier products
- Calibration data easily accessible for audits
- No need for pen and paper
- Beamex® Professional Services provide ongoing support when the calibration system is in use

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