

Beamex Case Story

**ATCO Power
Alberta, Canada**



**Generating efficient calibration
for ATCO Power**

beamex

ATCO GENERATES APPROXIMATELY 5,000 MEGAWATTS OF POWER THROUGH 19 PLANTS WORLDWIDE. COAL-FIRED GENERATING STATIONS, LIKE BATTLE RIVER, PRODUCE THE BULK OF ALBERTA'S ELECTRICITY.

ATCO Power develops, manages and owns independent power generation plants. These plants are technologically advanced and environmentally progressive in nature. ATCO generates approximately 5,000 megawatts of power through 19 plants worldwide. Sixteen of these plants are operated by ATCO Power in Canada and the United Kingdom while three are located in Australia operated by ATCO Australia. Alberta-based ATCO Ltd., holds assets of approximately \$11 billion. The company has over 8,000 employees.

ATCO Power is a division of the ATCO Group of Companies. One of ATCO Power's largest plants in Alberta is the 670 MW Battle River Generating Station. This coal-fired generating station produces an electric capacity of 670 megawatts. There are three main units at the plant, named Units 3, 4 & 5. Alstom boilers and General Electric turbine-generators make up Units 3 and 4. An Alstom boiler and a Hitachi turbine-generator are contained in Unit 5. The station has been in operation since 1956. Coal-fired generating stations, like Battle River, produce the bulk of Alberta's electricity.

The situation

The Electrical & Instrumentation Department at Battle River is responsible for maintaining and calibrating all instrumentation, including transmitters, switches and thermocouples. Shane Haugen and Kurt Voss are Instrumentation Engineering Technologists at Battle River.

The Electrical & Instrumentation Department's main goal is to function as a Preventative & Predictive Maintenance team. Shane and Kurt perform weekly calibrations and troubleshooting as a routine part of maintaining the process system and preventing incidents. Calibration also plays a vital role during plant shutdowns and turnarounds.



During a shutdown and turnaround all the plant instruments have to be calibrated for specific processes.

Shane and Kurt were on the hunt for new calibration software when they found Beamex at a local ISA Tradeshow. Battle River's prior calibration software was difficult to use and did not allow the flexibility they needed for multiple users. "We were not happy with our old calibration software, it was hard to use. We needed to find something better," Kurt explains. After demoing Beamex® CMX Calibration Management Software and learning about Beamex® MC5 Multifunction Calibrator, the plant purchased the CMX Professional software and several MC5 calibrators.

Beamex technical support and customer service made the transition quick and simple. Shane says, "We were very pleased with the easy and quick conversion of our existing database to CMX. The database was even simplified to meet our needs. Once we received the CMX database conversion tool, we could use it the next day."

Today, ATCO Power's Battle River plant utilizes Beamex® MC5 Multifunction Calibrators and Beamex® CMX Professional Calibration Software.

“Technicians from other plants within ATCO have come to our plant to help with shutdowns. They were really impressed with ease of use and plan to buy MC5 calibrators to increase their plant performance,” Shane notes.

The solution and main benefits

Shane and Kurt perform the calibration fieldwork at Battle River. They install, calibrate, configure and troubleshoot around 600 instruments using MC5s. A schedule of work orders are given to them on a daily basis. Every day is different, so they must have reliable and accurate equipment. They trust and depend on the MC5s for all their calibration needs.

The Beamex® MC5 saves time. Shane and Kurt no longer have to walk back and forth between a computer and instruments. They are able to take a documenting MC5 to an instrument, add or edit a point, or the entire calibration procedure. Previously, there was a large amount of tubing connected to their old equipment, which made it difficult to work with. Shane specifically mentions the handy 3-way hose provided with each MC5. The documenting MC5 calibrator has automated the calibration process. “When I calibrate an RTD, I just plug in the 2-3 leads and the calibrator does the rest,” Shane says.

The efficiency of calibration has improved. The MC5s are highly valued at Battle River, especially when it comes to turnarounds and shutdowns. Shane and Kurt, along with other technicians, must check all the instruments in a certain process during one of the events. Many times, technicians from different plants are brought in to help. “In the past, getting the individual up to speed using the equipment was painstaking,” Kurt continues, “the MC5 and software combination has alleviated it and made the process far easier.”

Beamex® CMX is used as the calibration management tool to micro-manage, verify, and locate instruments in the plant for all processes at Battle River. The majority of calibration completed at Battle River is for plant and equipment reliability. Documentation and records must be kept for reporting purposes. This data is required to include ranges and accuracy. CMX allows Battle



River to store all of this information for their 600 plus instruments in an easy to navigate, structured database. History trend analysis, verification and location pinpointing through CMX has saved the company time, money and improved efficiency. Shane adds “When you are called out in the middle of the night, you can quickly and easily verify if an instrument has been calibrated, its accuracy, and if it was within range.”

The user friendly interface and Windows based software make it easy. Even if a technician is not computer savvy or familiar with the software, they are able to catch on quick. “Creating a database that multiple people can easily use has been one of the biggest benefits,” Shane says.

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Case Story in Brief

Customer profile

ATCO Power

Alberta, Canada

The situation

ATCO Power is a division of the ATCO Group of Companies. One of ATCO Power's largest plants in Alberta is the 670 MW Battle River Generating Station. This coal-fired generating station produces an electric capacity of 670 megawatts.

Since 1956, the Battle River Generating Station has operated to improve reliability, sustain efficiency and keep its operations compatible with increasingly strict environmental standards. Calibration of process instruments is considered an essential function at Battle River. Proper calibration ensures the best possible plant performance, increases efficiency, and reduces risk of problems.

Solution

- Beamex® MC5 Multifunction Calibrator
- Beamex® CMX Professional Software

Main benefits

- Simple integration aiding quick startup
- Easy to use and reliable
- Speedy calibration through combination of calibrators and software
- Increased efficiency saves time and reduces problems
- User friendly calibrators and software allow new or temporary technicians to use the products with ease
- Error-free process
- Easy access digital certificates and records

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