

Air Liquide Takes the Wires Away from Quality Window

Gas is Air Liquide's business – specifically carbon dioxide (CO₂). The company ships CO₂ to a variety of companies in the food processing sector across North America.

And when you are dealing with a product that is invisible, it is important that you have strict controls to monitor your manufacturing process.

Air Liquide uses Quality Window to perform a number of tasks from process monitoring to downtime analysis. But it is their use of Quality Window for process audits that demonstrates the company's willingness to use technology to improve efficiency.

“Our technicians undertake regular process audits at each of our facilities”, says Michael Vonsenden – Plant Manager at the Air Liquide facility in Atchison, Kansas. “It is a time consuming task, but one that is necessary to ensure consistent quality. We wanted to improve the efficiency of these audits by using PDAs to collect the information digitally.”

PDAs are small handheld devices that are essentially mini-computers. They can run software and store data. Their lightweight portability and ability to accept custom programming is leading to an increase of use of the devices in a variety of applications.

In the past, Air Liquide technicians would walk the production line and manually record data for over 150 process variables in a log book. The technicians would then return to a work station and transcribe the data into Quality Window.

Today technicians record the data on a PDA using QWPocketPC software developed by Busitech. When the technician has completed collecting data, he returns to the workstation and places the PDA into a docking station connected to his computer. The QWPocketPC software automatically syncs with the Quality Window application, and the data is downloaded into a QW template.

“We now complete our audits in half the time, thanks to QWPocketPC,” notes Mr. Vonsenden. “We have also noticed a significant increase in data accuracy, as the possibility of transcription errors has been essentially eliminated.”



William Grippin Jr., a plant technician with Air Liquide, enters process data into a PDA using QWPocketPC

Air Liquide's products are typically used in the food industry in three ways: to add "fizz" to beverages such as soft drinks; as cryogenic fluid or dry ice to aid in temperature control; and for use in packaging foodstuffs, due to its inerting and bacteriostatic properties.

Because the company's products are used in the preparation and packaging of food and beverages, Air Liquide maintains the highest level of quality control. In fact, because its CO₂ is considered an ingredient in the beverage industry, Air Liquide has built a customized "Beverage grade CO₂" that is compliant with the strongest industry requirements and regulations.

Quality Window helps Air Liquide meet a variety of regulatory requirements in terms of reporting and proof of testing. In addition to the process audits described above, the company uses QW to verify test results and to analyse machine downtime. Downtime tracking helps to help improve overall reliability of the process.

The company has also begun to use Quality Window to verify the quality of raw materials received from suppliers. Material with wide variances can adversely affect the performance of their finished product. QW is used to record raw material data so that out-of-specification material can be identified and action taken.

The successful use of Quality Window in the Kansas facility has led to a push for standardized procedures and audits across the company. Air Liquide is now rolling out the use of Quality Window across all of its CO₂ facilities in the western United States.

"Quality Window is a powerful program that is very easy to use", comments Mr. Vonsenden. "It has already helped us improve efficiency and quality control and we are still discovering new ways to use the program".

For similar case studies about how leading companies are using Quality Window, check out the Articles section of the Busitech.com website.

