Measuring Carbon Dioxide in the Soft Drinks Industry

Carbon dioxide is used to carbonate the beverages in the production of soft drinks. In the United States, OSHA requires that the CO₂ level remains at, or below, 5,000 ppm in the atmosphere of any filler room area. A major soft drink manufacturer has successfully used Vaisala’s CARBOCAP® transmitters in their bottling plant.

It is necessary to measure carbon dioxide reliably in bottling plant environments. Vaisala CARBOCAP® Carbon Dioxide Transmitter Series GMT220 provides a well-founded solution for this measurement need. Due to the long-term stability and reliability, the lifetime cost of the sensor makes CO₂ monitoring easy and economical.

Safe levels of CO₂ in the Workplace

Carbon dioxide is used to carbonate the beverages in the production of soft drinks. While the containers are being filled during the bottling process, large volumes of carbon dioxide are emitted from the fillers into the filler room atmosphere.

As high concentrations of CO₂ are clearly hazardous, most countries, including the USA, have set workplace exposure limits. In the United States, the exposure limit is 5,000 parts per million (ppm). Occupations where carbon dioxide can rise to dangerous levels include brewing and carbonated drink industries.

In the United States, OSHA (Occupational Safety & Health Administration, U.S. Department of Labor) requires the average exposure limit of CO₂ to remain at, or below, 5,000 ppm during an eight hour working shift. This American company explained that they purchased Vaisala’s CARBOCAP® transmitters to monitor the levels of CO₂ in the filler room. When CO₂ levels pass 4,900 ppm, an exhaust fan system is activated to remove the CO₂ from the filler room. The fans turn off once the level returns to 1,000 ppm.

Why Vaisala?

Vaisala has a long history of quality products and reliable services. Vaisala’s CO₂ measurement is based on a unique CARBOCAP® technology with a built-in true reference measurement that enables long-term stability and ensures reliable measurement. The products require minimal maintenance and calibration.

Benefits of Reliable CO₂ Measurement

The company has generally been satisfied with the CO₂ transmitters as they require little or no maintenance, which saves time. A representative of the company does not believe that there is another company that could match the efficiency and reliability of Vaisala’s products, sales and services.

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