Sustainability for Mauritius

UNION ENGINEERING

Reliable solutions by dedicated people

January 2015

In the Indian Ocean, 900 km east of Madagascar and 2,000 km east of Africa you'll find the picturesque island of Mauritius. The island is partly covered covered in fields of green sugar cane growing in red ochre soil, and the white beaches are flanked by palm trees. Here, nature shows continuity, and now a sustainable CO_2 recovery plant from Union Engineering has been installed.

Gaz Carbo in Mauritius was established in 1959 and for over 55 years the company has supplied the island with a wide range of gases for a numerous range of application – including food grade carbon dioxide for soft drinks.
The company has entered into cooperation with Omnicane, a public company on the Official List of the Stock Exchange of Mauritius. Omnicane is the leading company within the modern sugar cane industry of Mauritius and the syngas from the ethanol production can be purified to food grade CO_2, thus expanding the business – which is the background for the agreement.

> *"Based on a still greener focus, Gaz Carbo decided to look at a more sustainable solution"*

From traditional CO_2 production to future-oriented CO_2 purification
For several decades, Gaz Carbo has been self-sufficient in CO_2 production, and except for the local brewery they are the only producer of CO_2 on the island. The CO_2 used to be produced on traditional combustion plants, but as a part of still greener focus Gaz Carbo decided to look at a more sustainable solution in connection with the new cooperation with Omnicane.

Managing Director of Gaz Carbo Vincent Rogers explains; *"We have 3 CO_2 plants that produce satisfying, and they can still be used if needed. However, when we entered into a contract with Omnicane, and had to decide which CO_2 technology we were going to install at their site, it was a natural step to look at possibilities in reducing utility consumption and improved carbon footprint. Union Engineering has patented solutions like the CO_2-Scrub, which is offering significantly improved OPEX, and the technology was a perfect match in relation to the focus for both Omnicane and ourselves."*

From waste gas to food grade CO_2
Gaz Carbo used to supply over-the-fence CO_2 for Coca-Cola. The new CO_2 plant is installed at the Omnicane site, where carbon dioxide is collected from the bioethanol production, instead of venting it into the atmosphere.

The cooperation is a step in Gaz Carbo expanding their business..

Prior to the choice of supplier, Gaz Carbo visited a few Union installations to learn more about the CO_2-Scrub and to ensure that the technology could actually remove the impurities of the raw-gas from the ethanol production.

"We were convinced that despite the fact that it is a simple CO_2 plant, this was the right technology for us. Both the installation and the start-up went as scheduled, and any concerns we may have had regarding the technology have been laid to rest. The purified CO_2 exceeds the strictest demands and is suitable for Coca-Cola and other food grade applications" concludes Arnaud Lagane, Factory Manager of Gaz Carbo.

> *"The result is a very effective, green and safe CO_2 purification plant."*

The technical scope
The newly installed CO_2 plant is 500 kg/h and prepared for 1,000 kg/h. The plant includes a CO_2-Scrub, which purifies CO_2 without using water, a Carboscan 300 and electrical Scada system integrated, which allows the best premises for remote process management and data collection.

The result is a very effective, green and safe CO_2 purification plant.

For further information, please contact Union Engineering a/s at info@union.dk or visit the website www.union.dk.

-/BBA