

MONITORING OF LANDFILL GAS

Task

Anaerobic fermentation produces gases containing methane, which are combustible (landfill gases). These are brought together from multiple extraction points. This gas is used as an energy source and frequently to power gas engines. Before its feed to the engine, the gas must be monitored for a minimum methane content and natural gas or liquefied petroleum gas is added as necessary.

Solution

UNION Instruments offers an optimally equipped version of its modular INCA gas analyzer as a solution for this. It determines the content of methane, carbon dioxide, hydrogen sulfide, and oxygen. The measured values serve as a control variable for the blending control. INCA uses a special measuring technique to measure over broad spectral ranges at very high accuracy. The sample gas preparation is integrated in the device and cools and dehumidifies the gas. The optional sample gas changeover expandable up to 10 measuring points is able to draw in sample gas from up to several hundred meters away.



User Benefit

The composition of the combustion gas influences start characteristics, efficiency, and knock resistance of gas-powered engines. The use of INCA assures optimal operating conditions for the engine and prevents problems that can lead to destruction of the engine and significant subsequent financial consequences, in particular. In addition, the quantity and composition of the gases from the extraction points allows conclusions to be drawn about the quality of the fermentation process.

