

The Customer

The Company is a world leader in the development and production of herbicides, fungicides, and insecticides for the professional agricultural, commercial and consumer turf and ornamental markets.

The Process

Their manufacturing operations are anchored by large-scale chemical synthesis and their production is achieved through highly automated continuous processing. Significant batch process capabilities exist in multiple locations around the plant. For environmental reasons, waste gases from the various processes at this facility are collected and sent to a Vent Gas Combustor (VGC) System – which is like a mini-incinerator.



The Problem

The company wanted to analyze the waste gases for feed-forward control of the Vent Gas Combustor (VGC) system. This application required measuring oxygen, flow and the total heating value of the waste gas stream, upstream of the VGC. These measurements were needed to provide the data necessary to control the fuel/air mixture for total combustion. To optimize this feed forward control loop, accuracy and response time were critical. Due to the high cost of some proposed recommendations for this application, alternate solutions to reduce cost needed to be considered.

The Solution

The Company researched a number of potential design options before purchasing Control Instruments' CalorVal BTU Analyzer. The most challenging part of the search was finding an analyzer that would provide them with a near real-time total BTU/calorific value because the components in the vent gas collection system varied so widely based on upstream manufacturing processes. In addition to its rugged industrial design, fast response and operating simplicity, the CalorVal offered the ability to accurately and continuously measure the direct BTU content of the varying waste gas stream. They installed the CalorVal in conjunction with an oxygen sensor and flow meter to complete their control loop system. Its real time measurement provided the accuracy they needed to optimize their fuel/air mixtures, well within the budget that was allowed for this project. They are very pleased with the analyzer. "It has proven to be a great investment and an eye opener regarding the BTU level."

SIC Code

- 2879: Fungicides, Herbicides

NAICS

- 325320: Pesticide & other agricultural chemical manufacturing

