

### The Customer

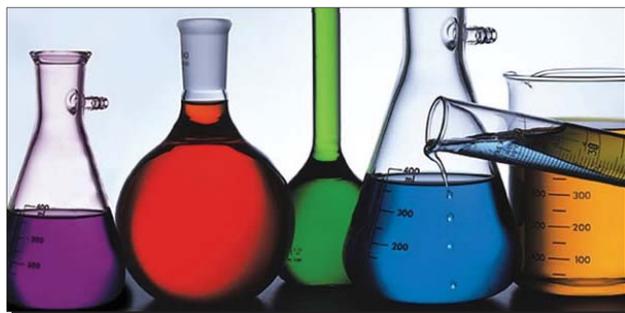
The Company is a worldwide manufacturer of fuel additives that improve the refining process and boost the performance of gasoline and other fuels. Customers include oil companies, refineries and other specialty chemical companies.

### The Process

The Company runs different batch processes. The waste streams from these processes consist mostly of isobutylene and propylene and are all vented to steam-assist flares. EPA 60.18 mandates them to maintain 300 BTU/SCF lower heating value (LHV) of their waste stream to the flare all the time. They enrich it with natural gas if required. They use Doppler ultrasonic flow meters to measure the flow rates and have calculated the heat content based on flow measurement of waste gas and supplemental gas.

### The Problem

The EPA wanted the Customer to have a direct, real time measurement of the LHV with either a Gas Chromatograph (GC) or a calorimeter and have the data available for the EPA audit. They no longer would accept a calculated BTU value.



The Customer desired a fast response time due to the nature of their batch processes and required a high range measurement for their heavy hydrocarbons.

### The Solution

Although the EPA did not specifically recommend Control Instruments' CalorVal BTU Analyzer, they did say that the CalorVal's LHV readings would be acceptable in lieu of a GC or other calorimeter.

The Company chose to install a CalorVal BTU Analyzer on their flare header. The CalorVal is a rugged industrial design that completely burns the sample and therefore is a direct measure of Total Calorific Value. It provides an accurate and continuous measurement over the entire measurement range from 0 BTU/SCF up to the full scale of a variety of substances. It is designed for real-time readings with a less than 5 second response time. In addition, it is fully heated to 120°C to prevent condensation and minimize downtime due to clogging.

After the installation, the Company compared the calculated BTU readings to the readings of the CalorVal. They matched to their satisfaction. They purchased an additional analyzer as a backup.

### SIC Code

- 2869 Industrial organic chemicals, not elsewhere classified

### NAICS Code

- 325199 All other basic organic chemical manufacturing