

# ASSIST GAS MEASUREMENT IN FLARE STACKS

## The Customer

The company manufactures solvents, polymers and intermediary chemicals. These products are sold worldwide and are used in the production of automobile interiors, steering wheels, paints, tires, adhesives, furniture, cosmetics and many other consumer and industrial products.

## The Process

The Company's site is large, thousands of acres, and its production units are high-volume continuous processes that operate 24 hours, seven days a week. Flare stacks are used to dispose of the waste products from the many batch chemical processes. Their waste streams contain many components such as ethylene, propylene, natural gas, mineral spirits, ethyl acetate, ethanol, hydrogen, isobutyl acetate and isobutanol, to name a few.

## The Problem

The Company was looking into several flare stack monitoring requirements that they were expecting to be required by the state. One area of concern was for measuring BTUs. They needed to continuously monitor the BTU concentration of the flares to ensure greater than 200 BTU/SCF for compliance purposes and control of assist gas flow rates. The monitoring range was from 250-2500 BTU/SCF. The company's initial preference was for a Calorimeter type measurement with fast response and GC measurement only where additional gas make-up information was required. They were looking for a reliable and proven analyzer.

## The Solution

They chose to initially install the CalorVal BTU analyzer on their most demanding application, knowing that if the analyzer could handle this it could handle others. The micro-combustion technology of the CalorVal was compared to the thermopile technology of other calorimeters and it met and exceeded their expectations.



Feedback received from field personnel has been glowing: "From my point of view, it is a very good instrument and not much maintenance to do on it. Since we installed it, I have not had to do much on it in 5 months".

They have now implemented an installation schedule to equip all of their flare stacks with the CalorVal solution.

