

The Customer

The Company is a global producer of high performance materials, industrial specialty chemicals and coating solutions. They sell to companies in a wide range of industries including: adhesive & sealants, automotive, consumer goods, oil & gas and photovoltaic.

The Process

Acrylate monomers, styrene and vinyl acetate monomer are used to produce the company's products. The off-gas from the polymerization process is collected in a vent line and sent to an RTO for oxidation. They continuously check the %LFL of the mix of monomer vapors in the vent line. If the LFL goes over 25% they bypass the RTO and send the high LFL stream to a caustic soda scrubber and active carbon filters



without any ignition source. They also purge the duct with nitrogen starting at the RTO and up to the emergency vent. They do not want a high LFL stream to reach the combustion chamber of the RTO.

The Problem

The Company was using a catalytic sensor to monitor the LFL of the off-gas vent stream. They were not happy with the 25 second response time. It took too long to prevent a high LFL stream from going into the RTO. They needed an analyzer with a quicker response time, preferably less than 5 seconds.

The Solution

They chose to install a PreVEx Flammability Analyzer on their off-gas vent stream. The analyzer has a very fast response time, less than 3 seconds (including sample transport time), and can react quickly to divert a high LFL stream from going to the RTO. Additional features that added to the selection of the PreVEx included: easy calibration, low maintenance and failsafe operation. The Company has been successfully using these analyzers for more than a year.

SIC Code

- 2821 Plastic Materials and Resins

NAICS Code

- 325211 Plastics material and Resin Manufacturing