

The Customer

The Company is primarily engaged in the manufacturing of synthetic resins, plastics materials, and non vulcanizable elastomers. Some important products of this industry include: cellulose plastics materials; phenolic and other tar acid resins; urea and melamine resins; vinyl resins; styrene resins; alkyd resins; acrylic resins; polyethylene resins; polypropylene resins; rosin modified resins; coumarone-indene and petroleum polymer resins.

The Process

Polymers (consisting of DMAC, Acetic Acid, DMF and others) are used to cast a 60" wide film that is then transported through a drying oven. Large streams of heated air are used to evaporate off the solvents. There are four zones in the process oven.

The Challenge

There is danger of an explosion from the buildup of solvent vapors in the oven dryer atmosphere. This buildup could occur by a malfunction in the production process such as: a sudden or improper amount of coating, a change in ventilation controls or excessive speed. In any of these cases, the concentration of flammable vapor has an opportunity to rise above safe levels, creating a potentially explosive mixture of vapor in air. The Company wanted to install a solvent vapor analyzer in each oven zone to warn operators when the LFL reached 25%. They were looking for an analyzer that could handle the varying mixtures of the process.

The Solution

The Company chose to install PreVEx Flammability Analyzers on each zone of their process oven. PreVEx analyzers give consistent and reliable readings even when the oven atmosphere contains mixtures of solvents and other materials. The flame temperature technology provides the ability to accurately measure solvent concentrations for an array of solvents, even though it was calibrated on only one specific solvent. There is no need for recalibration, giving excellent cross-calibration accuracy and ultimately eliminating incorrect readings.

The analyzers have a very fast response time and react quickly to prevent an explosion. Additional features include failsafe operation, low maintenance and easy servicing.



SIC Code

- 282101: Plastics Materials and Synthetic Resins

NAICS Code

- 325211: Plastic Materials and Resin Manufacturing