

The Customer

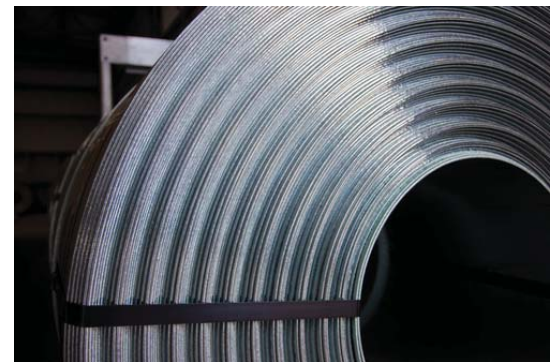
The Company manufactures aluminum rolled products for beverage & food packaging, automotive, building materials & consumer goods industries. They sell their products worldwide.

The Process

Bare coils of aluminum are uncoiled from a roll. The metal is chemically cleaned, treated and rinsed to prepare the surface for optimum coating adhesion and corrosion protection. The coil then enters a coating room where a paint containing solvents is applied with a roller uniformly to both sides of the strip. The coated sheet then enters an oven in which the coating is cured at high temperatures. During the curing process solvent vapors and other materials such as resins, plasticizers, additives and other compounds are driven off. The Company was using ventilation air to keep the solvent vapors at safe levels.

The Challenge

Safety and fire codes outline the design specification for the safe operation of solvent ovens. The codes limit the maximum solvent concentration allowable to 25% LFL under worst case conditions. If the LFL exceeds 25% continuous monitors must be used. The company's ovens were designed to run below the 25% LFL limit so a continuous monitor was not needed.



However, for peace of mind, they wanted to be protected in case there was a sudden increase in the %LFL in their process. They had no experience with monitoring and needed to find an analyzer that could handle their challenging environment.

The Solution

After some investigation and education on the applicable NFPA codes, the company chose to install PreVEx SNR675 Flammability analyzers on their ovens. The analyzer has the unique ability to accurately measure the total flammability of all the constituents in the process and is not susceptible to coating or poisoning by resins or any other plasticizers or silicones. It is fully heated to keep all the elements in the oven atmosphere in the vapor state eliminating clogging and sample condensation. In addition, the analyzer features fast response, failsafe operation, low maintenance and easy servicing.

With the analyzers in place the Customer was able to confirm that their process was running below 25% LFL. However, they did find on a number of occasions their process increased to 35% LFL and on one occasion signaled an alarm at 40% LFL.

They also experienced a reduction in ventilation air and fuel costs without affecting their production rates or violating the NFPA safety directives!

SIC Code

- 3353: Aluminum sheet, plate & foil

NAICS Code

- 331315: Aluminum sheet, plate & foil manufacturing