APPLICATIONS

Solvent Recovery

The Customer

The Company is a global manufacturer of soy-based polymers that are used as additives for the coated paper and paperboard markets.

The Process

The Company uses a Solvent Recovery System to recover and re-use solvents from its manufacturing process. Solvent laden air from the process is passed through an activated carbon bed. When the carbon bed is nearly saturated with solvent, a steam-down cycle occurs to condense out the solvent for re-use. The carbon bed is then regenerated for another collection phase. Two carbon beds are used, so that one bed can process the solvent-laden air while the other one is regenerating.

The Problem

The Company was using a timer to make the switches between beds. They felt the timer might be switching the beds too early or too late especially as the carbon beds began to age and become less adsorbent. Early switching means the process is operating at less than total efficiency and late switching results in breakthrough to the atmosphere resulting in penalties and fines. They wanted to accurately measure the saturation of the carbon beds and control the switching between beds in real-time.

The Solution

The Company chose the SNR650 Flame Ionization Detector to do this job. Its industrial design monitors the hydrocarbon levels in real-time and reacts quickly to switch beds. The sensor assembly is fully heated to prevent condensation and minimizes downtime due to clogging. With real-time monitoring the Solvent Recovery System is allowed to operate at peak efficiency.

Each steam-down cycle recovers the maximum amount of solvent, lengthening the life of the carbon-bed itself and there are no accidental solvent emissions released from the bed. This allows for optimum performance.

SIC Code

- 2821: Plastic Materials & Resins

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- 325211: Plastic Material & Resin Manufacturing

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