**Passive monitoring – A guide to sorbent tube sampling for**

**EPA Method 325**

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The Environmental Protection Agency has proposed new legislation for US petroleum refineries to control emissions from storage tanks, flares and coking units. When fully implemented, the rule will result in an estimated reduction of 5600 tons per year of toxic air pollutants and 52,000 tons per year of VOCs, improving air quality and protecting public health for workers and surrounding communities. Integral to the new law will be the requirement to monitor air concentrations of benzene at the perimeter fence-line.

Diffusive monitoring has been widely used in a range of air monitoring scenarios, i.e. occupational hygiene, as well asplus indoor air and ambient air monitoring. By eliminating the requirement for a sampling pump, diffusive monitoring provides a simple and cost-effective method of collecting the large number of samples required in many air monitoring programmes. Key applications include personal exposure monitoring, large-scale environmental studies, and indoor air monitoring.

Widespread use over many years has resulted in over 100 published uptake rates (e.g. ISO-16017 part 2). This simplifies matters for new users, as often uptake rates are available without the need to determine them experimentally.

This poster will discuss the application of passive sampling with industry-standard sorbent tubes and factors that need to be taken in to account when deploying them.