EPA’s announcement questioning whether the costs associated with the proposal are justified by the estimated 5,600 tons per year.
The API and American Fuel & Petrochemical Manufacturers both released statements following the EPA’s announcement.
The EPA said it anticipates the proposal will have a “minimal” economic effect on the refining units at petroleum refineries and require monitoring around refineries to ensure that neighboring communities are not unacceptable, monitoring and control of benzene concentration levels around the perimeter of all US oil refineries.

Aromatic compounds produced by oil refineries and petrochemical plants form the building blocks for numerous important materials, including dyes, detergents, solvents, adhesives, plastics, synthetic rubbers and pharmaceuticals. However, the aromatic compounds produced in these environments, such as benzene, are also highly toxic. Benzene is formed from both natural and human processes and it is a critical industrial chemical. It is a constituent of crude oil and becomes gaseous during petrochemical processing. Benzene is extremely hazardous and a recognised human carcinogen. Exposure to high concentrations in the 10,000 to 20,000 parts per million (ppm) range will result in death, whilst chronic exposure to ppm levels significantly increase the likelihood of leukemia. With the risk of either chronic or acute exposure, legislation has been put in place across the globe to ensure exposure is kept to a minimum, typically a TWA of 1ppm (OSHA).

As this exposure limit is so low, its concentration alone usually defines the toxicity of vapours in the petrochemical industry as a whole. As a result, it is essential that sub ppm benzene concentrations can be measured rapidly in the presence of the hundreds of aromatic and aliphatic compounds encountered throughout the industry.

Latest developments
The Centre for Public Integrity (CPI), Columbia University’s Mailman School of Public Health and The Graduate Centre at the City University of New York have teamed up to make some 20,000 pages of benzene documents that have surfaced during litigation open for public inspection.

In a recent article in The Guardian, Kristen Lombardi from the CPI said that “these suggest that major petrochemical companies, in conjunction with their trade association, the American Petroleum Institute (API), spent at least $36 million on research, which was “designed to protect member company interests,” as one 2000 API summary put it, and keep further restrictions at bay.”

In May 2014, the US Environmental Protection Agency (EPA) estimated that some five million Americans, not counting those with workplace exposures, face heightened cancer risks from exposure to benzene. As a result, it is essential that sub ppm benzene concentrations can be measured rapidly in the presence of the hundreds of aromatic and aliphatic compounds encountered throughout the industry.

Detection of benzene

Benzene is typically present in a cocktail of aromatic and aliphatic compounds, with the aromatics being the most harmful. Typically, PID are sensitive to all of these compounds but by using the proprietary high output Ion Science 10.0 eV system the aliphatics are not detected giving a Total Aromatic Compound reading – TAC mode.

Should TACs be detected above the regulatory limit, a Draeger benzene pre-filter tube can be easily attached to Tiger Select to ensure rapid detection and selective measurement of benzene – tube mode. Should the benzene reading exceed the
ever increasing awareness of the dangers of benzene exposure means that there is an urgent need for short term benzene measurement. The new EPA proposals under the Residual Risk Program and the boundaries of refineries will be implemented across Europe and the rest of the world. Global oil and chemical giants and the relevant trade associations now have the technology at their disposal for continuous, real-time benzene specific monitoring to ensure the ultimate long-term protection of workers, plant, the environment and local communities.

References:


In summary, there’s no doubt that the international petrochemical industry should prepare itself for even closer scrutiny following the release of the previously secret documents by the CPI. Kristin Lombardi quotes Peter Infante, former director of the office that reviews health standards at OSHA as saying: “There is still evidence of an elevation of risks of leukaemia’s and lymphomas among occupational groups exposed to the chemical, as well as populations being polluted from these benzene sources.”

It is also highly likely the US EPA proposals on monitoring and control of benzene emissions around the boundaries of refineries will be implemented across Europe and the rest of the world. Global oil and chemical giants and the relevant trade associations now have the technology at their disposal for continuous, real-time benzene specific monitoring to ensure the ultimate long-term protection of workers, plant, the environment and local communities.

Safety Technology Company Celebrates Historic Milestone with Special Anniversary Event

Dräger (Germany) is turning 125 in 2014. The medical and safety technology company celebrated its 125th anniversary with a special event for customers, business partners and staff from across the United Kingdom and Ireland.

Customers, business partners and employees from across the UK and Ireland gathered at the National Motorcycle Museum in Solihull this week to help Dräger celebrate 125 years of heartfelt dedication. The event was organised as a ‘thank you’ to enable guests to share in the company’s special celebrations.

Stefan Dräger, Executive Board Chairman, represents the fifth generation of the family run business. After unveiling a new company film, he shared with guests some unforgettable moments in the company’s history and outlined some key milestones during the last 125 years.

One of the highlights of the disclosure of Dräger Moments: a selection of 15 key moments that takes the viewer on a journey through the 125-year history of the company.

One stop on this journey is the Pullmanot, the first portable emergency ventilator back in 1907 that made it possible to resuscitate people who had lost consciousness due to a lack of oxygen. Another is the Dräger Tube, in 1937, a gas detection tube that could quickly detect carbon monoxide in the air.

World-renowned expert, Lord Winston, Professor of Science and Society and Emeritus Professor of Fertility Studies at Imperial College London, also gave an entertaining and enlightening talk on the afternoon tea celebration. In the 1970s, Lord Winston developed gynaecological techniques that improved fertility treatments, as well as pioneered new treatments in IVF. He now runs a research programme that aims to improve human implantation and has over 300 scientific publications about human reproduction and early pregnancy. He is also Chairman of the Genesis Research Trust.

The event was also attended by young inventor, James Roberts, who this month won the James Dyson Award for the world’s most innovative invention. The prize is named after James Dyson and focuses on the development of products that make a real difference to people’s lives and save money.

Stefan Dräger shared with guests some unforgettable moments in the company’s history and outlined some key milestones during the last 125 years.

For More Info, email: 3271pr@reply-direct.com

Casella Enhance Service with Flexible and Quick Turnaround Times

Casella (UK), a global provider of occupational and environmental monitoring equipment, has announced the appointment of two new service team members, which has significantly enhanced its service offerings, including quicker turnaround times and greater flexibility.

Tim Wright has been appointed to the role of Product Support Service Supervisor, where he is responsible for service provision and overseeing product support engineers and technicians. Carl Van Meekel has been selected for the role of Product Support Technician and is responsible for Casella’s UKAS (United Kingdom Accreditation Service) audited calibration laboratory.

“I am very pleased to join the team of a market leading company such as Casella,” says Tim Wright, Product Support Service Supervisor, Casella. “I look forward to bringing a variety of skills to the role and working with colleagues and customers to strengthen our service further.”

As well as the two appointments, Casella have also redesigned and refurbished their facilities. The refurbishments have enabled Casella to maximise process efficiency and significantly speed up turnaround times and provide customers with greater flexibility.

“We are delighted to further improve our ability to effectively support customers and strengthen our service with the new refurbishments and the appointments of Tim and Carl,” says Phil Bradley, Head of Product Development and Support at Casella.

“Meeting and exceeding the expectations of customers is our main priority, and we are confident these recent developments will enable us to do this better than ever.”

For More Info, email: 3268pr@reply-direct.com

Safety

Read, Print, Share or Comment on this Article at: Petro-Online.com/Articles

ANNUAL BUYERS’ GUIDE 2015 • WWW.PETRO-ONLINE.COM