



**Gas Processors Association – Europe**

*promoting technical and operational excellence throughout the European Gas Industry*

# **February Conference 2011** **February 23<sup>rd</sup> – 25<sup>th</sup>**

## **Amsterdam**

**“Operations, Maintenance, Reliability and Safety”**



**Venue: Amsterdam Marriott Hotel**  
**Stadhouderskade 12, 1054 ES Amsterdam**

## “Operations, Maintenance, Reliability and Safety”

For this conference GPA Europe is concentrating on the subject of Operational aspects of Gas Processing plants. The papers will consider experiences of users and suppliers in innovative methodologies and techniques to improve operation to get maximum efficiency out of gas processing facilities.

Papers will also discuss techniques for the assessment of hazard and risk on operating facilities to enable potential for incidents to be minimised.

In addition to the wide range of titles detailed below, a free Knowledge Session will be held on 25<sup>th</sup> February by PECO Facet discussing coalescing and filtration techniques for protecting critical equipment.

There will be a number of opportunities for delegates to network with colleagues from throughout the European Gas Processing industry

### Associated Events:

<b>Wednesday 23<sup>rd</sup> February</b>	<b>18:00</b>	<b>Registration</b>
	<b>18:30 – 20:00</b>	<b>Welcome Reception</b>
<b>Thursday 24<sup>th</sup> February</b>	<b>19:30 – 20:00</b>	<b>Pre Dinner Drink</b>
	<b>20:00 – 23:00</b>	<b>Conference Dinner</b>
<b>Friday 25<sup>th</sup> February</b>	<b>09:00 – 13:00</b>	<b>Knowledge Session – Application of Coalescing and Filtration For The Protection of Critical Process Equipment – PECO Facet</b>

# GPA EUROPE - AMSTERDAM CONFERENCE - PROGRAMME

Thursday 24<sup>th</sup> February 2011 – Morning

09:00	<b>Morning Session: Moderator – Nick Amott, Fluor</b>
09:15	<p><b>Gas-GAME – A journey towards Operational Excellence</b>  <i>Jannes Regterschot, Principal Process Engineer LNG Design, Shell Global Solutions</i></p> <p>Following incidents in industry there has been a renewed focus on asset integrity and process safety (AI-PS) in industry. Within Shell a new standard was issued setting out the AI-PS requirements for sites. The implementation of these requirements covers not only plant integrity, safe operations, process safety management and reliability but also changes in behaviour and culture. Learning from Shell's upstream and downstream operations a framework was put together, named Gas-GAME (Global Asset Management Excellence for Gas Plants). Gas-GAME helps sites to implement the new AI-PS requirements. It aligns processes, people and tools to deliver top quartile performance w.r.t. AI-PS. The improvement program covers areas like competency framework, maintenance execution, equipment integrity (pressurized and electrical), reliability centred maintenance, ensure safe production, site management systems, instrumented protective functions, asset information management and alike.</p>
09:45	<p><b>Gulf of Mexico Major Accident Hazard Assurance Review Using the Bowtie Methodology</b>  <i>Tom Milne, Petrofac</i></p> <p>This paper will discuss the process for undertaking a Major Accident Hazard review through an assessment of the effectiveness of preventive and protective Major Accident Hazard control barriers in the determination of Major Accident Hazards being controlled to ALARP.</p>
10:15	<b>Coffee Break</b>
10:45	<p><b>Process Safety Assurance of onshore &amp; offshore Gas Processing</b>  <i>Chris Flower, Senior Consultant, ABB Engineering Services</i></p> <p>The paper will look at case study examples of carrying out process safety assurance on gas plants globally. The facilities range from new green field projects to assets in full production. The paper identifies a methodology for verification of the process safety envelope and identifies some of the key issues that have been identified within these assurance projects.</p>
11:15	<p><b>The use of On-line Scanning and Tracer Technology to Diagnose Operating Problems</b>  <i>Lee Robins Process Diagnostics Business Development Manager, Tracerco</i></p> <p>Tracerco has done several large diagnostic studies on Degassers, Scrubber systems, and Glycol Contactors both onshore and offshore, for various Gas Processing plants. The approach is to use non-intrusive on-line techniques (typically injection of radioisotope tracers and/or external scans) to "see inside" the operating plant to diagnose and help solve operational issues. The paper would focus on various case studies and highlight the interesting learning from each of the studies.</p>
11:45	<p><b>OPTAGON™: Pushing the Boundaries – Can RAM Modeling techniques be applied to more complex operations?</b>  <i>Neil Wragg, GL Noble Denton</i></p> <p>Reliability, Availability and Maintainability (RAM) studies are typically used to assess production capabilities of process systems under stable conditions, such as constant failure rates, continuous operation, with failure data often excluding "catastrophic" type events. However, as with all aspects of the oil &amp; gas industry, these boundaries need to be pushed, and the "edge effects" need to be explored.</p> <p>This paper describes how GL Noble Denton have used their OPTAGON™ software to consider the implications of early life type failures which display a decelerating failure rate, the impacts of running short cycle times on underground gas storage facilities, and the problems associated with certain high impact, low probability failures, which extend beyond a single injection or withdrawal cycle.</p> <p>The paper details the pros &amp; cons of various spares &amp; spares holding philosophies, and gives insight into the areas that will benefit most broadly from de-bottlenecking programmes.</p> <p>A case study, from GL Noble Denton's RAM portfolio, will be explored to demonstrate the benefits of using the OPTAGON software package for such a RAM study. The case study will be based on an underground gas storage facility, using a salt cavern to store nitrogen for seasonal ballasting into a natural gas distribution network.</p>
12:15	<b>Moderator's Closing Remarks</b>
12:30	<b>Networking Lunch</b>

Thursday 24<sup>th</sup> February 2011 – Afternoon

	<b>Afternoon Session: Moderator – Alan d’Ambrogio, ABB</b>
<b>14:00</b>	<p><b>The Challenges of Underground Gas Storage – an operators perspective</b>  <i>Don Reid, New Assets Manager, Centrica Storage Ltd</i></p> <p>This presentation considers the main challenges that have been faced by Centrica Storage to achieve high levels of operational performance from the Rough gas storage facilities. It considers the market requirements, legacy issues, and emerging issues, and looks at the way these have impacted the operational management.</p>
<b>14:30</b>	<p><b>Managing Integrity and Reliability on Ageing Assets - Onshore / Offshore</b>  <i>Brian Hudson, Lead Principal Consultant, ABB Engineering Services</i></p> <p>The paper provides operators with key issues to address in managing the integrity and reliability on assets that are approaching or beyond their design life. The structured approach enable operators to understand their key vulnerabilities and provides a costed programme to maintain and enhance long term reliability and integrity, supporting an overall field life extension strategy.</p>
<b>15:00</b>	<b>Coffee Break</b>
<b>15:40</b>	<p><b>The Buncefield Enquiry Findings and Costain’s Approach to Best Practice in Integrity Level Assessment</b>  <i>Tim Shaw &amp; Robert Beresford, Costain Energy and Process</i></p> <p>Since the Buncefield incident of 2005, when a large fire followed the largest peacetime explosion on British soil since the Flixborough Explosion, as the result of a gasoline tank overfill, the regulator in the UK requires that a fit and appropriate risk assessment of Safety Instrumented Systems is performed.</p> <p>In 2009 a nationwide review of Integrity Level assessments using Layers of Protection Analysis (LoPA) was undertaken by the Enquiry, which found many errors, shortcomings and omissions. The issue of Integrity Level assessment has therefore received increased regulator interest and many studies at other facilities have had to be repeated.</p> <p>This paper describes Costain’s approach to achieving best-practice for a client in the assessment of existing plant. An approach is described whereby an initial assessment is completed using Risk Graph as a screening exercise, followed by the re-evaluation of higher SIL, using LoPA. Advantages are that effort is reduced, the higher risks are addressed in appropriate detail and the safety of the resulting design is robust. The approach reduces the effort required during the meeting, increases the overall safety of the facility and provides a better estimate of the costs, which, in turn, provides an advantage to the client company. In the case of new-build plant the approach achieves the aims of the regulator, other interested parties, such as Local and National Government and the local community, and provides greatest benefit at lowest cost to the operating company.</p>
<b>16:10</b>	<p><b>Improving Process Efficiency by Better Measurement</b>  <i>Paul Stockwell, IMA</i></p> <p>Efficiency is a key parameter for any process. Using water vapour measurement in carbon dioxide as an example, this paper illustrates how new technology can improve measurements to increase process efficiency.</p> <p>H2S and oil in water are also key measurements where improvements have been made to reduce their operating costs. Speed of response of on-line measurement systems can help reduce process costs.</p>
<b>16:40</b>	<b>Moderator’s Closing Remarks</b>
<b>17:00</b>	<b>Close</b>

The GPA reserves the right to alter the timings of the papers presented or to substitute alternative papers should circumstances so dictate.

**19:30 Welcome Drink and Conference Dinner**

Welcome Drinks kindly sponsored by ABB Engineering Services



Friday 25<sup>th</sup> February 2011 – Morning

09:00	<b>Knowledge Session</b>
0900 to 1300	<p data-bbox="225 327 1353 394"><b>Application of Coalescing and Filtration for the Protection of Critical Process Equipment</b> <i>Martin Copp, PECO Facet</i></p> <p data-bbox="225 405 1406 456">Effective filtration and coalescing of both gases and liquid significantly increases the efficiency, operating lifetime and reliability of plant. Correctly designed filtration/ coalescing vessels can also reduce risk to operators when changing cartridges.</p> <p data-bbox="225 468 501 495">The topics covered will include.</p> <ul data-bbox="276 506 1469 909" style="list-style-type: none"><li data-bbox="276 506 770 533">○ Basics of filtration (sieving, impaction and diffusion)</li><li data-bbox="276 539 770 566">○ Types of contaminant removal technology available</li><li data-bbox="276 573 831 600">○ Choosing the correct technology for contaminants present</li><li data-bbox="276 607 1469 658">○ Use of Isokinetic sampling and laser particle size analysis as tools to identify contaminants present and correct removal technology to be employed.</li><li data-bbox="276 665 959 694">○ Case studies of filtration equipment supplied in Gas Industry applications<ul data-bbox="323 705 759 909" style="list-style-type: none"><li data-bbox="323 705 732 732">▪ Compressor and Turbine Protection</li><li data-bbox="323 739 759 766">▪ Black Powder (Iron Sulphide) Removal</li><li data-bbox="323 772 557 799">▪ Amine Systems</li><li data-bbox="323 806 557 833">▪ Glycol Systems</li><li data-bbox="323 840 604 866">▪ Burner Tip protection</li><li data-bbox="323 873 628 900">▪ Meter Station protection</li></ul></li></ul>





## Registration Form – Package Details

### Technical Meetings Paris February 23<sup>rd</sup> – 25<sup>th</sup> 2011

	<b>GPA Member</b>	<b>Non-Member</b>
<b>1 - ALL FUNCTIONS</b> Two nights in Hotel, Wednesday and Thursday Welcome Reception and Conference Dinner Technical Meeting Networking Lunch Knowledge Session (free to members) Coffee Breaks	<b>Single</b> <b>£850 GBP / €975 EUR</b>	<b>£950 GBP / €1090 EUR</b>
<b>Double</b>	<b>£980 GBP / €1125 EUR</b>	<b>£1080 GBP / €1240 EUR</b>
<b>2 – LATE ARRIVAL</b> As 1 but Thursday night only in Hotel, No attendance at Welcome Reception	<b>£630 GBP / €720 EUR</b>	<b>£730 GBP / €835 EUR</b>
<b>3 – EARLY DEPARTURE</b> As 1 but Wednesday night only in Hotel. No Conference Dinner and no Knowledge Session	<b>£560 GBP / €640 EUR</b>	<b>£660 GBP / €755 EUR</b>
<b>4 – TECHNICAL MEETING ONLY</b> Conference, Lunch and Coffee Breaks No other Activities	<b>£325 GBP / €370 EUR</b>	<b>£425 GBP / €485 EUR</b>
<b>5 – KNOWLEDGE SESSION ONLY</b> No other Activities	<b>FREE</b>	<b>£100 GBP / €115 EUR</b>

Please return the completed form to:

**Gas Processors Association Europe**

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email: [admin@gpaeurope.com](mailto:admin@gpaeurope.com) / [www.gpaeurope.com](http://www.gpaeurope.com)

Registration details as provided by you are retained on a computer system for which reasons the Association has registered in accordance with the UK Data Protection Act.

*Cancellation Policy: If you cancel a £75 administration fee will be charged plus the cost of the hotel room.*

Insurance: It is the responsibility of each person to provide for their own travel / personal accident insurance. GPA Europe will not be held responsible for any accident / injury incurred during the duration of the conference

**GPA Europe cannot accept any bank charges on money transfers.**