AGA NewsFlash

2017 AGA Industry Forum - Gas in a CLIMATE OF CHANGE

Tuesday 28th & Wednesday 29th November 2017

We are pleased to confirm that the 2017 AGA Industry Forum will be held at **"Oaks on Collins", 480 Collins St Melbourne Vic 3000 on Tues/Wed 28th & 29th November**. We anticipate many local and international manufacturers and suppliers of domestic and leisure products will attend the Forum for what promises to be another very informative and significant industry event. It will be an ideal opportunity to keep the industry informed of many important issues facing our industry and we extend a warm invitation to register for the 2017 AGA Industry Forum.

The Forum will commence with a Welcome Dinner on the evening of Tuesday 28th November attended by an eminent dinner speaker. The Plenary Sessions will be held on Wednesday 29th November followed by a Farewell Dinner that evening.

The Oaks on Collins are currently working with AGA to establish discounted room rates for delegates. To be put on standby to receive information about these special rates as soon as they come to hand please email your details to our Mrs Kristy Stanley. Otherwise, keep an eye on our next NewsFlash which will contain all the information you need.

This year there will be Sponsorship opportunities and Trade Displays will also be available.

You can register for the Forum, Welcome & Farewell Dinners, book a Trade Display Area and secure a Sponsorship by visiting our website www.aga.asn.au and book on-line or, alternatively, you can contact our event organiser Mrs Kristy Stanley at:

E: kstanley@aga.asn.au
T: +61 (0)3 9580 4500

For those who have attended previous Forums, we thank you for your ongoing support of this important industry event, and look forward to seeing you at this year's Forum.

2017 Australian Gas Odorisation Seminar

International Chemicals Engineering (I.C.E.), Arkema and Axel Semrau are proud to host the 2017 Australasian Gas Odorisation Seminar. The odorisation of gaseous fuels such as natural gas, Propane and hydrogen is a critical factor in the safe use of gaseous fuels and yet many of us in the industry not directly involved with odorisation know little about it. Accordingly, AGA is proud to sponsor this event to promote greater awareness throughout our industry.

This free three hour seminar is a unique opportunity to hear from the experts on gas odorisation and discuss or raise any issues you feel relevant. It will also be an excellent opportunity to network with others in your field.

The Forum will cover:

- Gas Odorant Chemistry including applications, types of odorants and how pipelines are tested for odorant levels.

- Safety, Handling and Health effects.
- Odorant injection pumps and systems, by-pass addition, how liquid odorant pump injection is measured and methods for detection and neutralisation.
- How to manage and treat an odorant gas leak, the importance of gas odorants and how new pipelines are affected by odour fade.

Speakers will include renowned experts in the field of gas odorisation.
Jean-Benoit Cazaux, Gas Odorants Technical Manager, Arkema, France: International Gas Odorant Chemist

Frank Sasse, General Manager Axel Semrau, Germany: Worldwide Gas Chromatography Specialist

Introduction by Chris Ulrik, Managing Director I.C.E. Australia: Specialist with odorant and injection systems in Australia since 1980

Please forward specific questions regarding gas odorant, along with your confirmation, so that these can be addressed within the presentation.

Certificates of attendance will be provided
Brisbane: *18/09/2017,*
Department of Natural Resources and Mines. Landcentre, Woolloongabba, QLD, 4102.
Adelaide: *19/09/2017*
Adina Hotel, Adelaide city, SA 5000.
Melbourne: *21/09/2017*
Punthill Apartment Hotel, Dandenong, VIC 3175.
Perth: *22/09/2017*
The Rendezvous Hotel Perth Central, Perth city, WA 6000.

All sessions 9am-12noon

As space is limited, to confirm attendance and the Seminar you wish to attend make sure you register before September 15th at: info@iceng.net.au or +61 (0)3 9792 4844.

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'Power to gas'

Trial to inject hydrogen in Australia's gas grid

Earlier this month, the Australian Renewable Energy Agency (ARENA) announced a trial for an innovative new type electrolyser which could see excess renewable energy stored in the gas grid and used to decarbonise Australia's gas supply.

On behalf of the Australian Government, ARENA has provided $5 million in funding to Wollongong-based company AquaHydrex to commercially develop its new class of electrolyser to produce cheap hydrogen from splitting water.

In partnership with Australian Gas Networks (AGN), which owns the gas distribution network in South Australia, AquaHydrex will design and build an electrolyser pilot plant to trial injecting a small amount of hydrogen into the South Australian gas grid in a process known as "power-to-gas".

Power-to-gas involves converting electricity into hydrogen by splitting water, then injecting this into the gas grid, providing long-term energy storage and stabilisation of variable output solar and wind power.

ARENA Chief Executive Ivor Frischknecht said this demonstration is the first Australian trial to test 'power-to-gas' that will see hydrogen being injected into the gas network.

The full MEDIA RELEASE is available at https://arena.gov.au/news/power-gas-trialto-inject-hydrogen-australias-gas-grid/.
What does this mean for gas appliances?
The composition of the natural gas supplied to domestic homes is predominantly methane (typically >90%) and the concentrations of hydrogen is very low (typically

0.006 – 0.009%). The injection of 10-30% hydrogen into the gas distribution system may affect burner combustion and appliance performance characteristics, the extent of which will depend on the composition of the methane/hydrogen blend. For example, the operation of burners, standing pilots and oxygen depletion pilots may be affected, particularly at underload conditions and/or reduced supply pressure conditions.
The properties of natural gas, which is predominantly methane, are very different to those of hydrogen as can be seen in the table below.

	Methane	Hydrogen
Relative density	0.555	0.0696
Heating value (MJ/m3)	37.7	12.1
Flame speed (m/s)	0.4	3.2

Australian Standard (AS/NZS 5263.0) defines limit test gases known in the industry as N_a, N_b, N_c and S gases. These gases are utilized during certification testing under the current Australian Standards and are intended to check for satisfactory burner operation under the current natural gas quality specifications. One of the test gases (N_b) has 13% hydrogen and 87 % methane, however assessments with this test gas is limited to flame abnormality / ignition only. Other burner performance characteristics are not assessed on N_b gas and some appliances, such as commercial catering appliances, barbecues and outdoor heating appliances have not been assessed at all on limit gases.

Currently, gas appliances are not designed or tested for operation with hydrogen rich natural gas and, therefore, it will be necessary to establish what hydrogen concentrations gas appliances can tolerate for continued safe operation and performance.

The proposal put forward by Australian Gas Networks (AGN) is both innovative and exciting and may offer a valuable contribution as we transition to a low carbon economy. As further information comes to hand about this exciting initiative AGA will keep you posted in subsequent editions of NewsFlash.

Latest Standards Updates

AS/NZS 1596:2014 Amd 1:2017 (The storage and handling of LP Gas) was published on the 22 August 2017. Updates to this Standard may be of interest to LPG appliance, component and cylinder suppliers.

Please contact your AGA Client Manager for more information.