



JUNE 2006

Produced by Engineers Media, a company wholly owned by Engineers Australia, for the IChemE in Australia and the Chemical College of Engineers Australia. The statements made or opinions expressed in this magazine do not necessarily reflect the views of Engineers Australia or the Institution of Chemical Engineers in Australia.

EDITOR: Dietrich Georg – dgeorg@engineersmedia.com.au

NEWS



The new ammonia plant on the Burrup Peninsula

Ammonia plant starts operating

One of the world's largest ammonia plants is about to be commissioned on the Burrup Peninsula in Western Australia's Pilbara region. Indian company Burrup Fertilisers completed construction of the \$700 million plant last month.

The plant uses Western Australian natural gas to manufacture ammonia. Gas is supplied by the Harriet Joint Venture from the Varanus Island production hub. The plant has the capacity to produce 760,000t of liquid ammonia per year and provide employment in the supporting operational, service and maintenance industries. About 60 fulltime positions will be required once the plant is fully operational.

The plant includes an ammonia production unit, two 40,000t ammonia storage tanks, a closed circuit seawater cooling

system, a desalination plant established by the Water Corporation and control and administrative centres.

Burrup Fertilisers has entered into an offtake arrangement with Norsk Hydro for 100% purchase of all ammonia produced.

Construction of the plant commenced in April 2003. The engineering procurement and construction contractor was SNC Lavalin and the corporate environmental adviser was Sinclair Knight Merz.

The technology was provided by KBR, with other engineering services supplied by WorleyParsons.

Burrup Fertilisers is a private company that formed in Australia in 2000 and is promoted by Oswal Projects of India.

Development of the worldscale ammonia project has triggered implementation

of the Western Australian government's multiuse infrastructure package on the Burrup Peninsula. Upgrading of the Dampier Port, establishing multiuser infrastructure corridors, and realigning roads are all part of the projects under construction.

CONTENTS

News	1
IChemE/Engineers Australia	7
Calendar	8
New products	9



NEWS



Greg Lewin (r) took over the IChemE presidency from Prof John Archer last month.

Embrace more public dialogue

Greg Lewin, president of Shell Global Solutions International, has succeeded Professor John Archer to become the 65th president of the Institution of Chemical Engineers. The presidential handover took place during the Institution's Annual General Meeting in Billingham, Teesside, UK, on Friday 5 May.

Prior to taking the helm at Shell Global Solutions, Lewin was the vice-president of manufacturing, supply and distribution for Shell Europe, and executive vice-president of strategy, portfolio and environment for Shell's Oil Products Business.

In his address, Lewin called for the profession to embrace greater interdisciplinary and social collaborations, and to engage in a broader public conversation that will highlight the benefits that chemical and process engineering deliver to society.

Lewin said: "Chemical engineering is a profession without boundaries and has huge potential. Mankind faces a daunting array of economic, social and environmental challenges. Chemical engineers are capable of delivering solutions to many of

these challenges. I intend to use my year as president to highlight some of the areas where we can make a real difference, through delivering sustainable chemical engineering solutions that will both add value and improve the quality of people's lives."

Lewin will play a key role in the planning for a series of special events that will take place in 2007 to coincide with the 50th Anniversary of the Institution's Royal Charter. The Jubilee Year's activities will raise IChemE's profile on the international stage.

The meeting also saw the appointment of Dr Raghunath Anant Mashelkar, director general of the Council of Scientific and Industrial Research of India, as IChemE deputy president. Mashelkar will succeed to the presidency in 2007. The election of Michael Simm, director of process engineering at Foster Wheeler Energy, to the IChemE's governing council was also confirmed.

Lewin will present the address "IChemE – an international perspective" at the IChemE Member lunch to be held at Parliament House Sydney on Thurs-

day 20 July.

A graduate of Melbourne University, Lewin is the third Australian leading the IChemE, following Prof Rolf Prince in 1986 and Dr Robin Batterham in 2004.

IChemE
INSTITUTION OF CHEMICAL ENGINEERS
IN AUSTRALIA

Board

Denis Dare (chair)
Don Nicklin (deputy chair)
Tam Sridhar (immediate past chair)
Lindsay Mallen (chair
Nominations Committee)
Ainslie Just (honorary treasurer)
Euan McMinn (Vic)
Peter Ashman (SA)
Ming Ang (WA)
Matt Hardin (Qld)
Vik Kortian (NSW)

Executive Director

Jan Althorp
3/21 Vale St North Melbourne, Vic 3051
phone 03 9329 3046 fax 03 9329 3048
jan.althorp@icheme.org.au



ENGINEERS AUSTRALIA
College of Chemical Engineers Board

John Waanders (chair)
Zvonko Pregelj (deputy chair)
Brian O'Neill (immediate past chair)
Patrick McMullan (Council nominee)
Mike Dureau (Council nominee)
Elizabeth Harangozo (Council nominee)
Ian Ackland (Syd)
Lindsay Wheeler (Vic)
Roger Kelson (WA)
Andre Jemison (Young Engineers)
Georgina Brooke Cooper
(Women in Engineering)
Iven Mareels (Corresponding)

College contact
Julie Armstrong
11 National Circuit,
Barton ACT 2600
phone 02 6270 6539
jarmstrong@engineersaustralia.org.au



NEWS

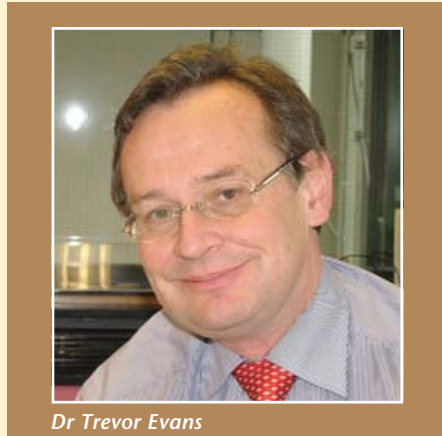
Chief executive to retire

The retirement of IChemE chief executive Dr Trevor Evans was announced during the Institutions' Annual General Meeting in Billingham, Teesside, UK on Friday 5 May.

The full statement issued by IChemE's governing council is as follows:

"Earlier this year, the IChemE chief executive, Dr Trevor Evans, advised the president that he wished to retire on his 60th birthday in February 2007, by which time he would have completed 33 years' service with IChemE, 30 in the role of general secretary/chief executive.

Bearing in mind that a number of special projects and activities are planned for 2007, which is the Golden Jubilee



Dr Trevor Evans

of the award of the Royal Charter to the Institution, it has been agreed that an executive search for a successor will commence immediately and that once a successor is in post, Dr Evans will step down."

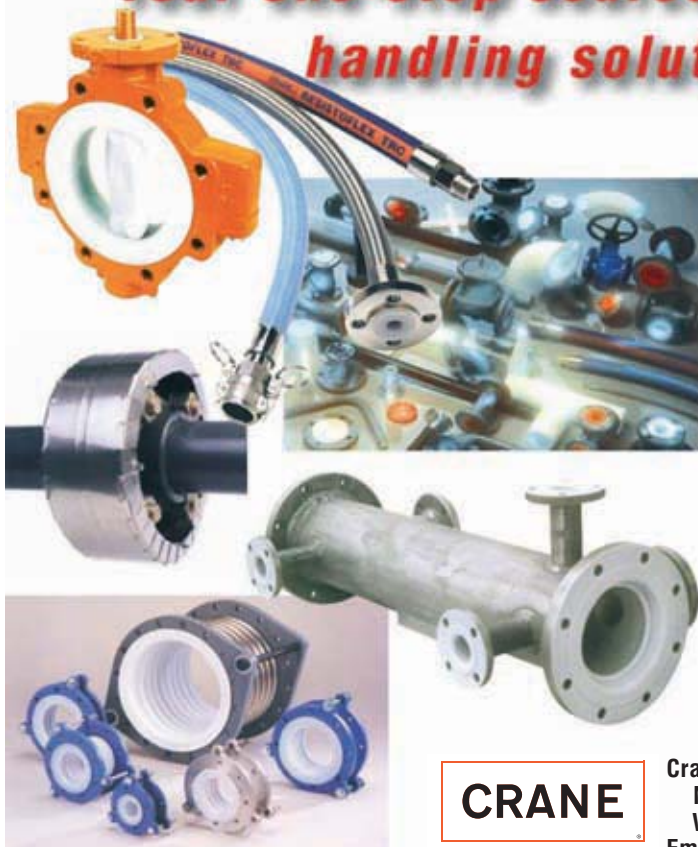
Inquiry into factory explosion

SafeWork South Australia is investigating an explosion that occurred at a Gladstone factory site last month. The blast killed three workers and two other workers suffered serious injuries. The factory belonged to Quin Investments.

SafeWork investigators are bringing materials collected to Adelaide where they will reconstruct the plant inside a warehouse. They are seeking assistance from experts from interstate and overseas to help determine the cause. The reconstruction is estimated to take several months. A coroner's investigation is also under way.

According to the state government, the plant was visited by SafeWork South Australia late last year.

Your one-stop source for engineered fluid handling solutions: Crane Australia



Crane Australia can take the hassle out of fluid handling for the most difficult corrosive & abrasive environments. Our solutions can range from off-the-shelf materials to specifically designed and engineered systems that will make your fluid handling problems a thing of the past.

We can supply you with:

- > Lined pipe & fittings in PTFE, PVDF, PP & HDPE
- > Expansion joints (TeflonÆ)
- > Flexible hoses(TeflonÆ)
- > Lined valves
- > Fluoropolymer coatings in ECTFE, ETFE, PFA & PE (for vessels, pipes, valves, agitators, impellers, and so on)
- > Safety shield covers in Teflon, PP, PVC, PE & Metal for flanges, valves, expansion joints and so on.

Contact us NOW with your requirements and let us show you how to save time and money with our fluid handling solutions.

CRANE

Crane Australia Pty Ltd
NSW 02 9623 0234 VIC 03 9465 2755 QLD 07 3865 3522
WA 08 9353 1530 www.resistoflex.com
Email rxsales@craneaus.com.au



NEWS

Upgrade of clean fuels project

BOC and BP recently completed a shutdown, overhaul and upgrade of their jointly-managed Bulwer Island facility near Brisbane.

As part of the Clean Fuels Project, the facility enables BP to produce diesel and petrol with a sulfur content of 50ppm. There are three separate installations at the facility:

- air separation unit (ASU) for oxygen production – owned and operated by BOC
- hydrogen generation unit (HGU) – operated and maintained by BP but owned by BOC; most of the hydrogen is piped to BP and the remainder is used to supply a few smaller BOC customers in the region
- the BP hydrocracker which uses the hydrogen from the HGU to produce clean fuels – owned and operated by BP; its main purpose is making ultralow-sulfur diesel; it represented the majority of the work for the overhaul.

As a result of the project the HGU has increased its output by 115%. The ASU was also upgraded to produce 10% more argon through efficiency saving. BP's hydrocracker was also revamped to increase diesel production.

A major objective was to deliver a unit that would run faultlessly for the next five years.

The shutdown, overhaul and upgrade are a critical part of the maintenance program which was put in place when the plant was built. It requires that a routine turnaround take place every five years. It was also required to meet statutory requirements.

The shutdown included:

- testing of several hundred safety relief devices and replacement as required
- replacement of catalysts
- thawing of the ASU and blowing clean air through to remove impurities
- electrical checks and calibration as required
- inspection of vessels for integrity
- overhaul of critical machinery.



BP's Bulwer Island project near Brisbane has undergone an overhaul and upgrade. These gas separation units are part of the facility.

The BP-operated hydrogen plant was shut down for 36 days and the BOC-operated ASU was shut down for 10 days. Due to time constraints, all shutdown activities occurred concurrently.

Taking into account specialist employees and subcontractors, there were 150 BOC personnel and 450 BP personnel on site each day overhauling different parts of the plant.

BOC brought in many experts including technicians from Siemens in Germany and local contractors. BP brought in people from other refineries in the BP Group, mainly from the US.

An initial project team was brought together about 24 months before the turnaround. Members of nearly all engineer-

ing disciplines were required, including chemical, mechanical, civil and electrical engineers.

The team reviewed the entire process, identifying bottlenecks to be avoided. Their work resulted in many improvements to the plant such as a preheat furnace which was previously draft limited. The team was also involved in the modifications made to the ASU to supply extra oxygen.

A critical part of the planning involved maintaining supply to about 200 existing BOC customers across Queensland.

The Bulwer Island facility opened in 2000. At that time they were the BOC Group's second largest gas production plant investment in the world - about \$179 million.



NEWS

Plant for gold recovery

Gekko Systems has announced that Stage 1 of Ballarat Goldfields' gold recovery plant was commissioned as scheduled.

Stage 1 of the plant has a number of unusual features designed to take advantage of the coarse gold ore body.

The plant incorporates a conventional two-stage crushing circuit that is achieving a crush size of less than 25mm at a rate of more than 1.5Mt/a. The crushed product is stored in an above-ground bin capable of holding up to 500t of feed for the tertiary circuit. An allowance has been made for a second bin of the same or greater capacity to allow for daytime crushing and 24h running of the remainder of the circuit at the expanded capacity.

The final product size reduction is carried out by a vertical shaft impactor (VSI) which is achieving a better than design size reduction at a P80 crush of 650µm.

The Gekko gravity recovery system runs in closed circuit with the VSI and consists of rougher and scavenger inline pressure jigs (IPJ) followed by a cleaner IPJ that produces a concentrate stream of about 4% of the mass (5% design).

The plant has a number of unusual features.

Mass pull is variable depending on the sulfide loading in the circuit. A Falcon concentrator scavenges the final tailing.

Gekko said final tailings residues to date have been better than expected and well below design.

Stage 2 of the process plant is planned to incorporate an intensive cyanidation plant to maximise the recovery of gold from the sulfide concentrate stream.

The company said significant work has been carried out on the actual concentrates to ensure the downstream process will be at least as efficient as the primary recovery circuit.



Ballarat Goldfields' new gold recovery plant.



Can we get a new MSDS turned around in 24 hours?

Talk to Chem Alert when you need to know.

At Chem Alert, our own in-house team of toxicologists, safety experts and scientists write and review all our MSDSs to quality assured standards using 16 header GHS format. So not only are our response times fast, you can also rely on the quality of our work because it's not just supplied by the manufacturer or bought in from overseas. As a Chem Alert client, MSDSs are regularly updated on your customised online database. And you're just a phone call away from the advice of our helpdesk 24/7. To find out more visit www.chemalert.com or telephone us freecall 1800 555 477.

CHEM ALERT
Chemical Safety Management Services

RMT
Risk Management Technologies



NEWS

Firing up waste for industrial use

Transpacific Technical Services in Victoria is set to install technology, including a shredding and plastic extrusion process, to convert plastic waste into fuel rods for industrial boilers. The Victorian government, through Sustainability Victoria's Business Energy Innovation Initiative, is to provide \$51,000 toward the project.

Tony Riccioni of Transpacific Technical Services explained that the provision will allow for the establishment of a two-phase program. The first phase will involve the segregation of a high-value plastic polymer waste stream to be recycled in traditional methods. High-value polymers can be reused for fabrication on gatic drain covers, bollards and railway sleepers.

The second phase will involve the low-grade laminated polymers that cannot be recycled due to cross-contamination of up to three types of plastics together. These plastics will be separated and proceed into Transpacific's fuel chip

program, where the waste stream is sorted, shredded and chipped.

Transpacific will then mix together additives with the different forms of plastic waste in a cyclone and extrude a solid fuel rod for industrial applications.

Queen's Birthday Honour

Chemical engineer Douglas Rathbone has been appointed a Member in the General Division of the 2006 Queen's Birthday Honours. He was appointed "for service to the community through



Doug Rathbone

executive roles and contributions to a range of children's cancer support organisations, particularly the Children's Cancer Centre Foundation, to chemical engineering and to viticulture.

Rathbone, who is also on *Engineers Australia* magazine's 2006 list of Australia's 100 most influential engineers, is the managing director and CEO of Nufarm. Under his leadership for more than two decades, the company has grown into one of the world's leading crop protection manufacturers.

CHEMECA
2006
Knowledge and Innovation

17-20 September 2006
Auckland, New Zealand

Langham Hotel

THE UNIVERSITY OF AUCKLAND
FACULTY OF ENGINEERING

SCENZ
Society of Chemical Engineers New Zealand

www.chemeca2006.auckland.ac.nz

Images Courtesy of Tourism Auckland



ICHEM/E/ENGINEERS AUSTRALIA

On 24 May the Joint Victorian Chemical Engineering Committee held its second seminar of the year on the future of ethanol in Australia at Engineering House, North Melbourne. Chemical engineer **Martin Jones**, general manager of government relations at CSR Limited, spoke on this topical subject. He covered the history of ethanol production, the global perspective and the current and future position of Australia. Following is a summary of his presentation.

The future of ethanol in Australia

The use of ethanol as a fuel has a very long history. The first recorded use is by Samuel Morey who in 1826 used a blend of turpentine and ethanol to fuel a boat on the Connecticut River. Ethanol was the chosen fuel for Nicholas Otto with his Otto cycle engine in 1860. He selected ethanol because it was excise free, as it has been in Australia. But that will change in 2011 when excise will be phased in by the federal government.

CSR first began producing ethanol in 1901 at its Pyrmont site in Sydney. In the 1940s the Yarraville distillery, which remains in operational today, and a facility at Warracknabeal, which only operated for six weeks, were built. Fuel grade ethanol was first produced at the Sarina site in 1929 and after acquisition by CSR this facility was replaced with a modern Biostil process in 1989.

While the fundamentals of fermentation have not changed, efficiencies have improved with improved yeasts and better heat integration. Molecular sieve technology has replaced cyclohexane extraction to produce the anhydrous grade needed for fuel blending. Grain routes to ethanol are well established. The next major technical breakthrough is lignocellulosic routes to fermentation, using enzyme technology. This will enable cellulosic materials such as wood, green waste and crop stalks to be broken down into fermentable sugars.

All fermentation processes have byproducts which are key to the economic attractiveness of fuel ethanol production. In the case of molasses the coproduct is dunder which is effectively used with precision agriculture as a liquid crop fertiliser. Grain processes coproduce highly nutritious "distiller's grains" which

**High petrol prices in Australia
have made fuel ethanol a more
attractive proposition.**


are used as cattle feed. High in protein and minerals they are sought after by dairy farmers.

In Australia, sugar itself, while easy to ferment, is too valuable to the sugar market to be an attractive feed, unlike in Brazil where the business model is different and the costs of producing sugar are low compared with Australia.

Government mandate has created a large fuel ethanol market in Brazil. The market has been enhanced by the development of the fuel flexible vehicle, which can use any fuel from 100% petrol

to 100% ethanol and now accounts for almost 80% of new vehicle sales. This enables the Brazilian sugar miller to arbitrage production between sugar and ethanol to provide the most attractive return to the mill. As oil prices have surged, ethanol has become more attractive than sugar and so production shifted to ethanol. Recent sugar price surges have worked in tandem to keep ethanol prices high in Brazil and in international markets.

High petrol prices in Australia have made fuel ethanol a more attractive proposition. Markets remain in their infancy with sales of about 45ML/a in a national petrol market of 2GL/a. The major oil companies BP, Caltex and Shell are offering blends, as are a number of independents. Growth in the industry depends on long-term sales and off-take agreements, and will be built upon increasing consumer confidence.




ESD Simulation Training
Dynamic Simulation Training Specialists

2006 TRAINING COURSES

- Control, Operation & Design of Reciprocating Gas Compressors**
22nd-23rd May Brisbane
- Control & Operation of Centrifugal Gas Compressors**
24th-26th May Brisbane
- Practical Aspects of Process Control & Instrumentation**
3rd-5th April.....Perth
- Production Process & Emergency Systems on Oil & Gas Installations**
26th-28th June Perth
- Subsea Systems**
29th-30th June Perth
- Design & Operation of FPSO's**
3rd July 5th July 2006 Perth.

For more information contact:
Julie Scholey, ESD Simulation Training Pty Ltd
Tel: (08) 9367 1844
Email: julie.scholey@esd-simulation.com



www.esd-simulation.com



CONFERENCES SEMINARS EXHIBITIONS

For a comprehensive list of upcoming engineering events, visit Engineers Media's fully searchable, continuously updated events database.

[CLICK HERE TO VISIT THE DATABASE](#)

Chemical Engineering

Symposium: Optical scanning workshop (5 days) Victoria 3 Jul. *Inquiries:* Rheology Solutions 03 5367 7477, fax 03 5367 6477, email info@rheologysolutions.com, web www.rheologysolutions.com

Energy

Conference: Emergency power supplies conference (2 days) Sydney 26 Jul. *Inquiries:* IDC Technologies 02 9957 2706, fax 02 9955 4468, email register@idc-online.com, web www.idc-online.com

Conference: Australian energy user 2006 (2 days) Sydney 24 Oct. *Inquiries:* Roman Domanski, Energy Users Association of Australia 03 9898 3900, fax 03 9898 7499, email euaa@euaa.com.au, web www.euaa.com.au

Management

Course: Strategic leadership & service excellence (4 days) Melbourne 27 Aug; *Inquiries:* email d.samson@unimelb.edu.au

Courses: Contract administration (2 days) Brisbane 17 Jul, Cairns 22 Aug; *Tender administration* (2 days) Brisbane 19 Jul; *Contract supervisors and inspectors course* (2 days) Brisbane 3 Aug; *Negotiation skills for contract managers* (1 day) Cairns 24 Aug.

Inquiries: Emma Betts, Contract Control International 07 3236 1936, fax 07 3236 2046, email reception@ccintl.com.au, web www.ccintl.com.au

Course: Alliance contracting masterclass (2 days) Sydney 10 Jul. *Inquiries:* International Quality and Productivity Centre 02 9223 2600, fax 02 9223 2622, email registration@iqpc.com.au, web www.iqpc.com.au

Conference: PMOz 2006 – the 3rd annual project management Australia conference (4 days) Melbourne 8 Aug. *Inquiries:* email pmoz@eventcorp.com.au, web

www.pmoz.com.au

Conference: Engineering leadership conference (2 days) Melbourne 24 Aug. *Inquiries:* Belinda Tompkins, Engineers Australia Victoria Division 03 9321 1712, email btompkins@engineersaustralia.org.au, web www.engineeringleadershipconf.org.au

Conference: Avoiding project blowout (1 day) Melbourne 11 Jul; *Biotechnology* (2 days) Melbourne 5 Sept; *Technology strategy & innovation management* (3 days) Melbourne 31 Oct. *Inquiries:* Melbourne Business School 03 9349 8788, fax 03 9349 8799, email programs@mbs.edu, web www.mbs.edu

Course: Introduction to project management (2 days) Canberra 23 Oct; *Introduction to leadership* (3 days) Canberra 6 Nov; *Introduction to risk in contracting* (2 days) Canberra 9 Nov. *Inquiries:* UNSW@ADFA Business Services 02 6268 8421, fax 02 6268 8135, email business.office@adfa.edu.au, web www.unsw.adfa.edu.au/units/busservices/short_courses/index.html

Miscellaneous

Conference: ICOMS 2006 – international conference of maintenance societies (4 days) Gold Coast 11 Jul. *Inquiries:* email wceam@wceam.com, web www.wceam.com

Exhibition: QMAN: Queensland manufacturing technology exhibition (3 days) Brisbane 17 Oct. *Inquiries:* Reed Exhibitions 02 9422 2500, fax 02 9422 2555, email ask@reedexpo.com.au, web www.reedexpo.com.au

Conference: Austrib 06: international tribology conference – putting tribology to work (4 days) Brisbane 3 Dec. *Inquiries:* 07 3844 0909, fax 07 3844 1138, email austrib2006@icms.com.au, web www.icms.com.au/austrib2006

Safety

Conference: 2006 safeguarding Australia

summit & expo (3 days) Canberra 19 Sept.

Inquiries: email info@safeguardingaustralia.org.au, web www.criticalincidentmanagement.com.au Systems Engineering

Course: Systems engineering (5 days) Wellington 24 Jul, Melbourne 31 Jul, Adelaide 11 Sept, Canberra 16 Oct, Sydney 28 Aug, Brisbane 30 Oct. *Inquiries:* Project Performance International 03 9876 7345, fax 03 9876 2664, email contact@ppi-int.com, web www.ppi-int.com

Conference: The safety show Sydney (3 days) Sydney 18 Oct. *Inquiries:* Fiona Madigan, Australian Exhibitions & Conferences 03 9654 7773, fax 03 9654 5596, email fiona@aec.net.au, web www.aec.net.au

OVERSEAS

Chemical Engineering

Conference: Chemeca 2006 (4 days) Auckland 17 Sept. *Inquiries:* Mary Niumata, Centre for Continuing Education, University of Auckland +64 9 373 7599, fax +64 9 373 7419, email mary.niumata@auckland.ac.nz, web www.chemeca2006.auckland.ac.nz

Conference: 11th Apcche congress (4 days) Kuala Lumpur, Malaysia 27 Aug. *Inquiries:* The Institution of Engineers, Malaysia +60379684008, fax +60379577678, email siti@iem.org.au, web

Conference: South African chemical engineering congress (3 days) Durban, South Africa 20 Sept. *Inquiries:* Gill Slaughter, SAIChE KwaZulu-Natal Branch +27 31 3321451, fax +27 31 3686623, email info@sacec2006.org.za, web www.sacec2006.org.za

Conference: Process intensification & process innovation – (PI)2 II cleaner, sustainable, efficient technologies for the future (6 days) Christchurch, New Zealand 24 Sept. *Inquiries:* Leslie S Petersen, Engineering Conferences International, email conference@duke.poly.edu, web www.engconfintl.org/6ap.html



INNOVATION SUSTAINING FUTURE BUSINESS

27-30 August 2006 // Kuala Lumpur, Malaysia

www.apcche2006.org

Congress secretariat: siti@iem.org.my or janet@iem.org.my

NEW PRODUCTS

Piping for aggressive fluids

Crane Australia is marketing a lined steel piping system called Resistoflex, aimed at providing a cost-effective alternative to stainless steel and hastalloy.

The system is made up of spools, connecting fittings and ancillary components like expansion joints, dip pipes and hoses.

The company said these piping systems are capable of taking abrasive and chemically aggressive fluids at high working temperatures. They are lined with either Teflon PTFE (polytetrafluoroethylene), polypropylene, or kynar PVDF (polyvinylidene fluoride) polymers.

Fittings are lined with paste that is extruded or isostatically moulded seamless polymer tubes, which are flared across the flange face to fully insulate the housing against chemical attack.

Lining thickness varies according to size and is offered in standard or heavy-duty.

The company said Resistoflex



Fittings lined with polymers to withstand corrosive chemicals and high temperatures.

withstand a wide range of chemicals, in working temperatures up to 230°C (PTFE) and will work in pressures up to 1723kPa, depending on the lining material.

The systems are available in lengths up to 9m and diameters up to 450mmNB.

• *More information? Qikreply 18*

Valves for water and beverages

Bürkert Fluid Control Systems is marketing its 2/2-way diaphragm valve – the 2031 valve – designed with modular options and additions for use with water treatment, biotechnology and food and beverage industry applications, particularly cleaning-in-place (CIP) and sterilising-in-place (SIP).

The valve can be specified with standard options for neutral gases and liquids, high purity, sterile, aggressive or abrasive fluids, and viscous fluids. They are offered in variations including manual and pneumatic actuators, forged or cast stainless steel bodies or with varying finishes.

The valves come in a tank bottom variant, with body sizes from DN8 to DN100 and all standard BS, ISO and ASME end connections.

The valve is available with DN4-50.

• *More information? Qikreply 16*



Diaphragm valve.

Pump optimisation

Flowserve Corporation, a provider of fluid motion and control products and services, has introduced IPS Tempo, an intelligent pump optimisation, control and protection system.

The company said the system improves performance, reduces power consumption up to 50%, and lowers mean time between repairs.

IPS Tempo adjusts pump operation for flow, pressure, temperature, and fluid level changes. The system monitors process variables and pump power, and offers extensive condition monitoring and control.

It incorporates variable frequency drive technology, pump-specific optimization software, an industrial grade electric drive, and an intuitive menu-driven user interface.

• *More information? Qikreply 17*



NEW PRODUCTS

Self-cleaning filtration system

The Zero Gravity Filter (ZGF) System 2000, available from Imatech, is a fully automatic self-cleaning liquid filtration system designed for high capacities and filtration ratings from 10µm to 400µm.

The company said the system is particularly suitable to full-flow applications such as the protection of heat exchangers, analytical equipment and sensitive industrial processes.

It said uninterrupted performance is guaranteed by the specialised geometry of the filter element which ensures a 100% cleaning effect, returning the filter to clean differential pressure on every backwash and eliminating the need for ad-hoc manual intervention.

The filter element is manufactured to stainless steel 316.

- *More information? Qikreply 20*



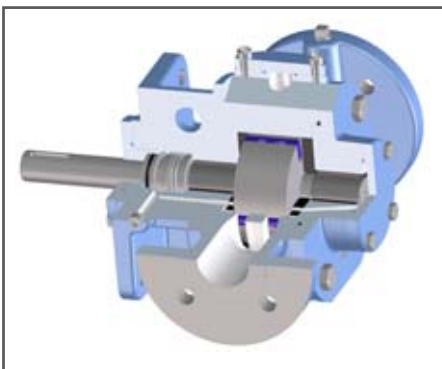
This automatic liquid filtration system is designed for high temperatures.

Pump for corrosive liquids

Viking Pump has announced its LVP series stainless steel vane pump during the AICHEM 2006 conference in Frankfurt, Germany.

With 14 bar thin-liquid capability, and capacities up to 45m³/h, the pumps are designed for thin, corrosive liquids.

The pump's casing is surface-hardened to 62 Rockwell C.



Stainless steel vane pump

The company said the series' standard chrome oxide coated shaft and silicon carbide bushings are extremely hard and long-lasting, and its Peek vanes offer high strength, low friction for less wear, and broad chemical compatibility.

The series is available in a metric-standard design, with DIN flanges, IEC motor mount, and metric-standard shaft seal options. It is also available with ANSI flange ports, NEMA motor mount, inch-standard seals, and it can be foot mounted.

- *More information? Qikreply 19*

Safety controller

Rockwell Automation has released Allen-Bradley GuardLogix safety controller, featuring a two-processor safety architecture enabling integrated safety and standard control with the same platform. GuardLogix is rated to safety integrity level (SIL) 3.

The controller uses RSLogix 5000 programming software, the same development tool used by all Logix programmable automation controllers.

- *More information? Qikreply 21*

For more information on any of these products, send an email to kmcmanus@engineersmedia.com.au with the subject headline "CEA Qikreply". Your contact details and the Qikreply number of the product should be included in the body of the email.