

CHEM DIGEST

ISSUE NO 2, APRIL TO JUNE 2015



MCI (P) 030/12/2014

- APIC, Seoul, Korea 2015
- Launch of SS603 : 2014 Code of Practice For Hazardous Waste Management
- Responsible Care Conference - "Revitalise the Spirit of Responsible Care"



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SCIC ChemDigest is a quarterly newsletter by the Singapore Chemical Industry Council Limited. Whilst Singapore Chemical Industry Council Limited takes every reasonable care to ensure that the information in this publication is accurate, Singapore Chemical Industry Council Limited does not accept any responsibility for any errors or omissions. All information is correct as at date of print.

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Singapore Chemical Industry Council Limited

FEATURE

ASIA PETROCHEMICAL INDUSTRY CONFERENCE (APIC 2015, SEOUL, KOREA)



Korea Petrochemical Industry Association (KPIA) has hosted the Asia Petrochemical Industry Conference (APIC) 2015 on 07-08 May in Seoul, Korea.

APIC 2015 was a great success with nearly 1,200 participants from 40 countries. The event was attended by more than 140 participants from Singapore. The conference had been able to provide valuable and practical discussions as well as to develop mutual friendships and professional network all over the world.

An interesting change to the conference programme this year saw all major global petrochemical consultants sharing their views on the industry during the first day. Presentations given during the first day were run concurrently by Wood Mackenzie and HIS for the morning session. For the afternoon session, Tecnon Orbichem and Platts provided an update on the future developments of the petrochemical industry in Asia, China and the Middle East.

Second day of conference opened with the Chairmen of the seven steering committee

associations giving their opening addresses. The event was followed by the keynote speeches below:

- "Raw materials in the chemical industry – Regional Trends in a Globalized Industry" by Dr. Kurt Bock, Chairman of the Board of Executive Director, BASF
- "Enabling Asia's Petrochemical Future: The Role of Innovation" by Mr. Uwaidh K. Al-Harethi, Executive Vice President, Chemicals, SABIC

7 breakout sessions were also conducted for interested participants from the various sub-sectors:

- General Matters and Raw Materials
- Polyolefins

- Styrenics
- PVC
- Synthetic Rubber
- Synthetic Fiber Raw Materials
- Chemicals

The conference came to a close with a farewell party and with the tradition of APIC, the host of 2016 was announced during the party. Singapore would be the proud host of the conference next year with the event held on 19-20 May 2016. More information on APIC 2016 - Singapore can be found in page 4.



ASIA PETROCHEMICAL INDUSTRY CONFERENCE 2016

Date:
19 May to 20 May 2016

Venue:
Raffles City Convention Centre

The Asia Petrochemical Industry Conference (**APIC**) will be held in Singapore for the second time since its inception in 1979. This major regional event is expected to attract more than 1,200 participants from around the world.

APIC has established itself as a premier industry forum well attended by senior corporate executives from the petrochemical, chemical and chemical-related industries. It has been an effective avenue facilitating valuable exchange & sharing of

information as well as an excellent business networking platform for companies in this region.

SPONSORSHIP

Sponsorship opportunities for the event and conference booth are now available. For more information on APIC 2016-Singapore, email to secretariat@scic.sg



50%

of the average car produced today is made from advanced plastics made from oil and natural gas.

The advanced plastics that ExxonMobil scientists helped pioneer are making cars lighter, stronger and more fuel efficient than ever before. In fact, for every 10% reduction in vehicle weight, fuel economy improves by up to 7%. Life takes energy – and ExxonMobil technologies are helping the world use it more responsibly.

Energy lives here™

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DO YOU KNOW

CELANESE TO CONSTRUCT VAE EMULSIONS UNIT IN SINGAPORE

Celanese Corporation (NYSE: CE), a global technology and specialty materials company and a global leader in vinyl acetate ethylene (VAE) emulsions, announced it has begun construction of a VAE emulsions production unit at the company's Jurong Island, Singapore, acetyls facility. The unit is expected to begin production in 2nd half of 2016.

This Singapore unit will be the third VAE investment by Celanese in Asia, demonstrating the company's commitment to growth and development of its emulsions business in both China and Asia outside China. The Singapore plant will support not only the Southeast Asia market, but also other Asia Pacific countries including India, Australia and New Zealand.

"Building a new VAE emulsions unit within the existing Jurong Island facility is a strategic choice for Celanese considering the upstream integration with raw material supplies and the geographic market coverage," said Mark Murray, vice president and general manager of the Celanese emulsion polymers business. "Building a VAE plant in Singapore will broaden our network to better serve customers throughout the Asia-Pacific region, primarily in the high-end applications of architectural coatings, building and construction, carpets, and paper industries."

"This new VAE emulsions facility will build on the capability we have developed over the last 15-plus years in Singapore and we are excited about our continued growth in the region – and in particular in Singapore." said Mark Oberle, senior vice president, Asia. "This expansion will support Celanese's global and regional growth strategy to expand our reach into emerging markets by bringing highly successful products such as Celanese EcoVAE® – a low odor paint emulsion – from the mature markets of the U.S. and China to the Southeast Asia market."



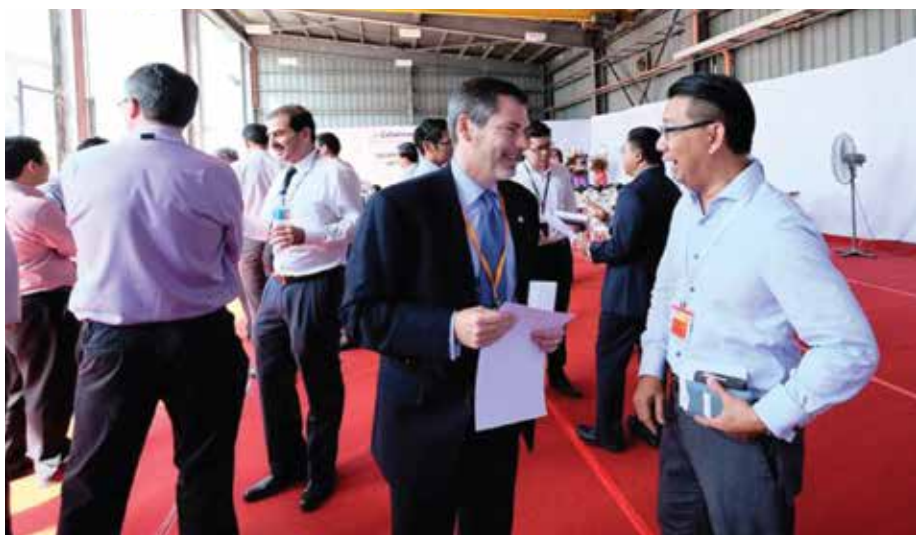
Pictured from left to right: Mr Li Hong Wei – Singapore Site Director (Celanese), Mr Vasant Malhotra – VP Operations (Jacobs Engineering Singapore Pte Ltd), Mr Dennis Tan – Director, JTC (Jurong Town Council), Mr Mark Oberle - Sr. Vice President, Asia (Celanese), Mr Lim Kok Kiang – Asst Managing Director, EDB (Economic Development Board), Dr Tay Kin Bee – Chairman SCIC (Singapore Chemical Industry Council), Ms Anna Tran - HR Director, Asia (Celanese), Ms Anna An Celanese - Asia Commercial Director, EP (Celanese)

"We are delighted that Celanese has chosen Singapore to establish its latest VAE facility to serve its customers in the region. Celanese's strong commitment to chemicals manufacturing in Singapore is a testament to the attractiveness of Jurong Island as a global petrochemicals hub. We warmly welcome Celanese's latest investment, and look forward to deepening our partnership further," said Mr. Lim Kok Kiang, Assistant Managing Director of the Singapore Economic Development Board (EDB).

Celanese created EcoVAE emulsions for use in low VOC (volatile organic compounds)

paints. These emulsions address formulation and regulatory concerns as well as offer distinct competitive marketing advantages especially among environmentally-conscious consumers. EcoVAE® emulsions can be formulated into low-odor and low-to-near-zero VOC interior coatings.

Contributed by:
Celanese Singapore Pte Ltd



DO YOU KNOW

WATER EFFICIENCY MANAGEMENT FOR CHEMICAL INDUSTRY

WATER CONSERVATION DRIVE

Everyone in Singapore has a stake in water as a necessary resource, an economic asset and an environmental treasure.

To safeguard a robust and sustainable water supply, Singapore has developed a diversified and robust water supply through the Four National Taps, namely water from local catchments, imported water, NEWater and desalinated water.

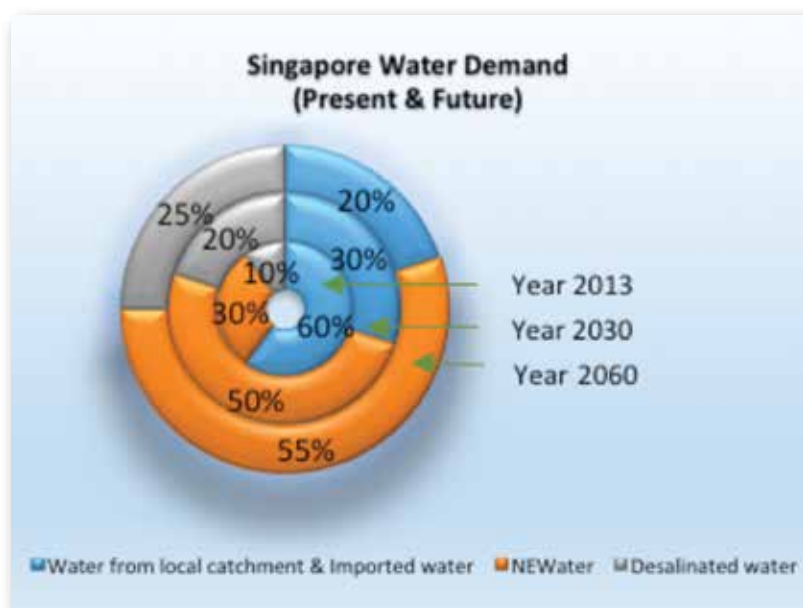
Citing publication "Our Water, Our Future" published in March 2013 by PUB, water demand in Singapore is about 400 million gallons a day, with homes consuming 45% and the non-domestic sector taking up 55%. By 2060, total demand might double, with the non-domestic sector accounting for about 70%. On the supply side, Singapore is on track to more than triple our NEWater capacity and ramp up desalination. Together, these will be able to meet up to 80% of water demand in 2060.

However, installing the infrastructure to supply water is only one half of the equation. Against the back-drop of growing population and economy and volatile energy prices, Singapore also need to achieve a sustainable level of water consumption and manage the impact of wastewater on the environment. Therefore, as one of the many initiatives, the Water Efficiency Management Practices was introduced by PUB.

LEGAL REQUIREMENT

The Water Efficiency Management Practices requirements under Part IV A of the Public Utilities (Water Supply) Regulations were gazetted via the Public Utilities (Water Supply) (Amendment No. 2) Regulations 2014 on 16 December 2014, and came into operation on 1 January 2015.

For large water users, it is mandatory to submit a notification to PUB on or before 31 March 2015 for their different sites. These large water users will also be required to install private water meters at various water usage areas within their premises to track and monitor the water usage. Large water users are all qualifying consumers attaining the water use threshold of 60,000 cubic metres in a calendar year.



Thereafter by 30 June 2015, they will have to submit their Water Efficiency Management Plans (WEMPs) annually for at least three consecutive years. Notification and submission of WEMPs shall be done through <http://www.edma.gov.sg>.

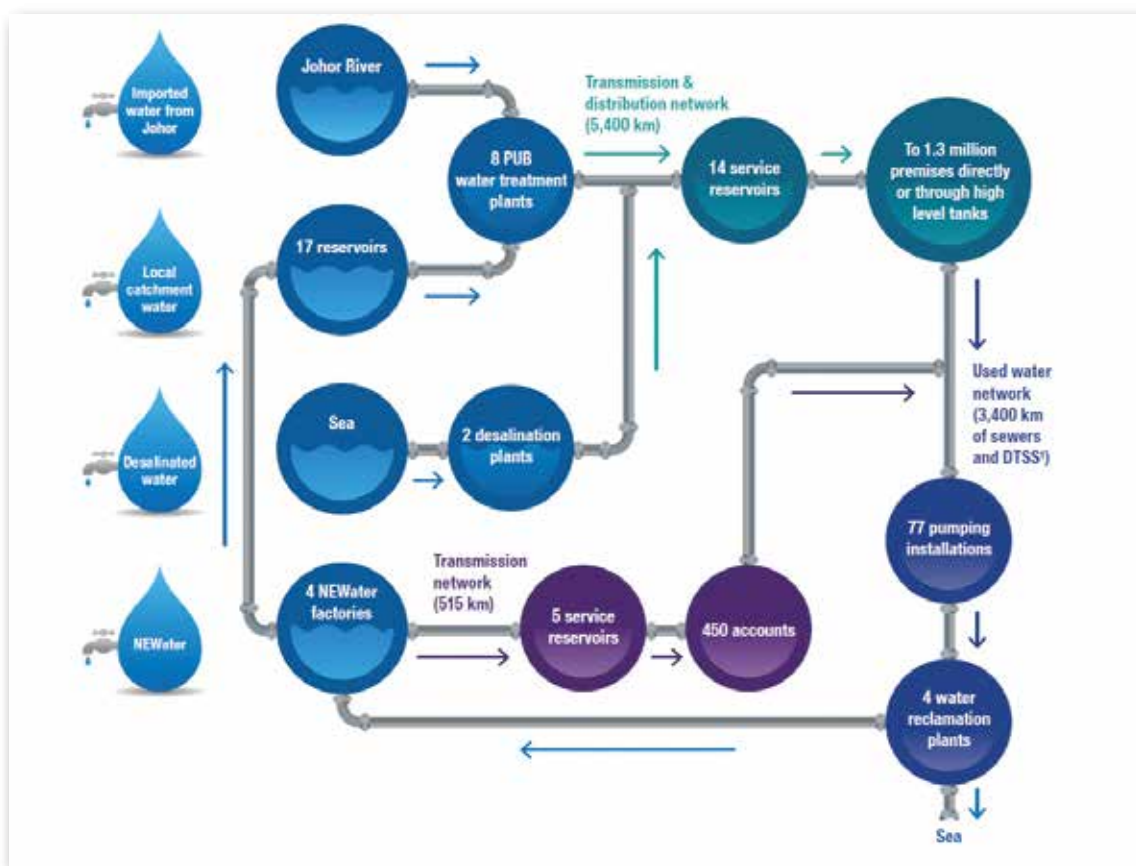
ECONOMIC BENEFIT FOR THE CHEMICAL INDUSTRY

Besides the obligation from the chemical industry to support sustainable use of water, it also pays to reduce water consumption and reap savings in water bill. This makes financial sense when analysing

the components of water bill, consisting of water tariff, water conservation tax, water borne fee and sanitary fee. Out of these four components, the first three are tied to water consumption. Therefore, the less one consumes, the more savings one receives.

This incentive to conserve water is in line with Singapore approach to put the right price on water to reflect its scarcity and take into account the costs involved in the entire national water system, which includes, but not limited to the higher cost of water supplies from NEWater and desalination.

DO YOU KNOW



Extract from PUB website to illustrate Singapore National Water System

MANDATORY SUBMISSIONS AND INSTALLATION OF PRIVATE WATER METER

A large water user has to appoint at least one official WEMP Submission Representative to prepare and submit the WEMP for each of its site. This representative can be any person who is in direct employment of, or acting for or by arrangement with the qualifying water consumer.

The information to be submitted as part of the WEMP by the industries sector can be found in the following internet link:
http://www.pub.gov.sg/consERVE/WEMP/Documents/WEMP2015_industry.xls
 A sample of the water balance chart can be found in the following internet link:
<http://www.pub.gov.sg/consERVE/Documents/waterBalanceChart.pdf>

For large water users in the industries sector, private water meters shall be installed to monitor water consumption in the process area, cooling tower, boiler, scrubber, cooking area or kitchen and toilet.

In addition, the supporting documents and records for the preparation of WEMP shall be kept for at least 5 years, and may be maintained in electronic form.

Currently, there are no plans for the mandatory implementation of WEMP. However, companies are strongly encouraged to implement the measures.

WATER CONSERVATION STRATEGIES

PUB, together with SPRING Singapore and industry stakeholders has developed a national standard on water efficiency management systems, SS 577. The standard includes a set of framework and guidelines, as well as suggested tools and best practices for water users to adopt to make improvements to their water usage and efficiency.

It specifies requirements applicable to water usage, including monitoring, measurement, documentation and reporting, design and procurement practices for equipment, systems, processes and personnel that contribute to water efficiency. The standard

facilitate organisations to prepare their Water Efficiency Management Plan (WEMP).

FUNDING FROM THE GOVERNMENT

Affected consumers may wish to tap on PUB's Water Efficiency Fund (WEF) to offset the installation costs of private water meters. Since 2013, PUB has increased its funding under the WEF from 50% to 90% for water audit projects.

Furthermore, organisations interested in adopting the SS 577 standard and applying for certification can apply for funding under PUB's WEF.

Lastly, the Water Efficiency Manager Course was introduced by PUB, the national water agency and the Singapore Polytechnic to equip facility managers with the knowledge and skills to conduct water audits and apply water efficiency measures to reduce water consumption in commercial and residential buildings, as well as industries.

Contributed by SCIC Process and Engineering Committee

DO YOU KNOW

(C) GHS LABELING VS UNRTDG

A GHS hazard warning label with the label elements (e.g. Pictogram, signal word, hazard statement, precautionary statements, product identifier and supplier information) is required to be affixed on a single packaging (e.g. drums, jerry cans) or inner packaging. (E.g. Plastic bottles, Glass Bottles, etc.)

UNRTDG requires the proper shipping name (PSN) and UN Number to be displayed on each package. The appropriate Class and Subsidiary Risk(s) label(s) with a minimum dimension of 100mm x 100mm is required be affixed on each package.

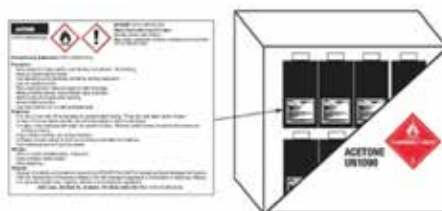
PICTURES OF GHS AND UNRTDG LABELS ON PACKAGE AND SHIPPING CONTAINER

GHS Label on Single Packaging



* Single Packaging – GHS pictogram of Flammable hazard class not required to be replicated in GHS label.

GHS Label on Inner Packaging



* Combination Packaging – GHS pictogram of Flammable hazard class required to be replicated in GHS label affixed on inner packaging.

GHS pictograms are not required for the transport of DG and should not be displayed on freight containers, road vehicles or railway wagons/tanks. (E.g. irritant).

For additional details, please refer to Chapter 4 of SCIC's "Guidebook on the Globally Harmonised System of Classification and Labelling of Chemicals"

HAPPENINGS

NEA HAS ROLLED OUT THE REVISED INDUSTRIAL EMISSION STANDARDS FOR AIR IMPURITIES ON 20 MAR 2015

SCIC has been actively engaging NEA since 2009 on the industrial emission standards for air impurities. In the recent industry consultation in 2014, SCIC assisted in the collation of the industry feedback from Jan to Mar 2014 and actively engaged NEA management in Jun 2014 to understand the rationale for tightening of the air emission standards as well as to request more time for assessment of the impact and resources required to achieve the proposed standards.

The formation of an Industry Team comprising the oil refineries, the

petrochemicals companies as well as key affected companies was initiated by SCIC. The Industry Team worked jointly with the Oil Industry Environmental Steering Committee (OIESC) to develop the industry position paper to raise the industry's issues and concerns regarding the air emission standards to NEA. The Directors of the affected companies were also engaged in Jul 2014 to finalise the industry's proposition for presentation to NEA's management.

With the above successful collaborative efforts by SCIC and NEA, the revised industrial emission standards for air impurities was rolled out by NEA on 20 Mar 2015.

Existing industries will be granted a grace

period till 1 July 2018 to comply with the revised standards for compounds of mercury, lead, cadmium, ammonia and hydrogen fluoride, and by 1 July 2023 to comply with the revised standards for particulate matter (PM), nitrogen oxides (NO_x), carbon monoxide (CO) and sulphur dioxide (SO₂).

Please visit the URL link below for more information:

<http://www.nea.gov.sg/corporate-functions/newsroom/news-releases/nea-announces-tighter-industrial-emissions-standards-for-better-air-quality>



Watermark
AWARD
Recognising outstanding
water contributions

Watermark Award Nominations are now open.

The Watermark Award recognises water stewards for their outstanding contributions and commitment towards protecting and raising awareness of Singapore's precious water resources.

Nominate exemplary individuals or organisations with extraordinary contributions towards Singapore's water sustainability for the prestigious Watermark Award.

Nominations open from **1 July 2015**.

For more information, visit
www.pub.gov.sg/watermarkaward.



Lighting the way to water efficiency

Past recipients such as Philips Singapore Pte Ltd actively promote good water practices during their safety induction training and orientation programme for new employees and also organised the Environment Health & Safety (EHS) Carnival in 2012 to boost water conservation awareness.

HAPPENINGS

TRAINING COURSE ON “REGULATORY, TECHNICAL & SAFETY REQUIREMENT OF ISO TANK CONTAINERS”



ISO Tank Containers are the preferred method for bulk transportation for liquid products distribution process. With over 30 years of experience and exposure as a consultant and specialist in this field, the one and a half day course organised by SCIC was conducted by Mr Paul Sireci on 23rd and 24th April 2015.

As most of the products transported in the Chemical Industry are hazardous in nature, it is

essential to have proper training and knowledge of this technical equipment before taking charge of operational activities.

Participants who have attended this course gained a better understanding on the foundation for the use and application of the ISO Tank container where introduction of regulatory framework and various technical aspects of operating a tank container were taught.

This workshop comprises 1-day lecture and ½ day on-site visit to CWT Logistics Pte Ltd to inspect the ISO tank container.

Some of the topics that were covered during the course include:

- Regulatory developments on training
- Tanks Specification; tanks for specialized cargoes and their basic designs

- Design and manufacturing aspects including its construction, codes and procedures, remanufacturing and the defects
- Functions and the maintenance consideration for the different fittings
- Operation safety with highlights on the common hazards, classes, labels and the hazards and rules of confined space entry
- Types of survey and survey guidelines
- Regulatory framework impacting ISO Tanks and the statutory requirements imposed for tank certification etc
- Cargo worthiness, compatibility of tank and its cargo, tank cleanliness and its tightness etc

SCIC would like to express its gratitude to CWT Logistics for their continuous support as venue provider and NewPort Tank Containers Singapore Pte Ltd for providing an ISO Tank on site in making this course a successful one.



The Human Element
at Work.

BIG SOLUTIONS FOR A GROWING PLANET

Dow combines the power of science and technology to help address many of the world's most challenging problems. Together, the elements of science and the human element can solve anything.

HAPPENINGS

SHARING SESSION: SCIC & MAYER BROWN SINGAPORE CHEMICALS ROUND TABLE



SCIC and Mayer Brown Consulting Singapore jointly hosted a General Counsel Forum and Industry Briefing on 9 June 2015.

This sharing session was well attended by the industry members.

GENERAL COUNSEL FORM

The objective of the General Counsel Forum was to serve as a platform for discussion and exchange of ideas on industry issues and development.

Mr Pieter de Ridder, Partner at Mayer Brown JSM shared with the participants on the tax landscape in Asia and highlighted the importance of ensuring that investment structure addresses anti-abuse concerns so as to be successful with tax planning.

Mr Jean-Philippe Montfort, Partner at Mayer Brown summarized the global trends in regulatory compliance and key issues for legal counsels. He also shared with participants regulatory updates from South Korea, Taiwan and China.

INDUSTRY BRIEFING

As the regulatory and business environment in the Asia-Pacific region is rapidly changing, the purpose of this session was to provide updates on the developments of a few major movements and their specific implications for the chemical industry.

Ms Wong Chian Voen, Director of Mayer Brown Consulting (Singapore) Pte Ltd gave a presentation on the emergence of new chemical regulations and the rise of mega-free trade agreements in the Asian region.

SCIC would like to thank the speakers, Mr Pieter de Ridder, Mr Jean-Philippe Montfort, and Ms Wong Chian Voen for their effort and time in sharing with the industry at this session.



LET'S GO FURTHER ON ONE LITRE OF FUEL.

We must learn to use energy more efficiently. For 25 years, the Shell Eco-marathon has supported teams worldwide who explore ways to maximise fuel economy. Last year's winner was capable of travelling 3,771km on the equivalent of one litre of fuel. This spirit epitomises our relationship with car manufacturers, finding ways to make cars more efficient. And is typical of our ambition to help build a better energy future. Let's go. www.shell.com/lets-go

LET'S GO.



HAPPENINGS

SCIC ANNUAL GENERAL MEETING 2015

SCIC held its eighth Annual General Meeting (AGM) on 25 June 2015 at the M Hotel Singapore.

The meeting was chaired by SCIC Chairman, Dr Tay Kin Bee who first shared with the members a summary of the activities by SCIC.

The meeting proceeded with the following proposals supported and endorsed through voting of members who were present:

Financial report for the period from 1 June 2014 to 31 December 2014

Re-appointment of Messrs YM Woo & Co as company auditor for FY 15

Election of Board Members for term 2015/2016:

Dr Benjamin James Harris

General Manager
Lucite International Singapore Pte Ltd

Mr Stephen Brian Fowler

General Manager
Shell Jurong Island

In closing, Dr Tay thanked members for their attendance and the session continued with some light refreshments networking among the members.



CALLING ALL CHEMICAL COMPANIES

In its 8th year running, ChemEx 2015 is an excellent platform in reaching out to undergraduates from chemical engineering related studies.



We welcome companies' participation to join us for this event through the various sponsorship types:

- To host plant visit
- To hold an exhibition booth at the marquee area
- To host plant visit and exhibition booth at the marquee area
- To be a sponsor for this event

To find out more information please contact secretariat@scic.sg. This event is open to both SCIC and non member companies.

PEOPLE

SCIC MAJOR HAZARD INSTALLATION (MHI) COMMITTEE

The SCIC Major Hazard Installation (MHI) Committee has been formed in May 2015 which will engage the relevant government agencies in supporting the enhancement of Process Safety regulatory framework in Singapore. This included developing proposals and building capability in preparation for the impending safety case implementation regime. A joint agency-industry workgroup formed under the committee will also develop technical and assessment guidance for the safety case implementation regime.

SCIC would like to extend a warm welcome to the following members to the newly formed committee:

Committee Sponsor**Mr Stephen Brian Fowler**

General Manager
Shell Jurong Island

Committee Chairman**Mr Low Wai Hoe**

Manager, Regulatory Policy Planning
ExxonMobil Asia Pacific Pte Ltd

Committee Members**Mr Larry Golan**

Manager, Specialties & Improve Department
ExxonMobil Chemicals Operations Private Limited

Mr Evert Klein

Asia Pacific Process Safety Discipline
Technology Lead
ExxonMobil Asia Pacific Pte Ltd

Mr Bernard Leong

HSE Manager
Petrochemical Corporation of Singapore
(Private) Limited

Mr Khong Beng Wee

HSSE Manager
Shell Jurong Island

Ms Gloria Wang

Process Safety Manager
Shell Bukom

Ms Cissie Yeung

Product Regulatory Manager, APME -
Downstream
Shell Eastern Petroleum (Pte) Ltd

Mr Eso Thomas

Process Safety and Technical Department
Manager
Singapore Refining Company Private Limited

Mr Amit Bhatnagar

Process Safety Manager
Singapore Refining Company Private Limited

WELCOMING NEW SCIC MEMBERS

SCIC would like to welcome the following companies:

**IS LOGISTICS PTE LTD**

IS Logistics Pte Ltd where your logistics needs are our primary concern. IS Logistics aim to help its customer to turn their logistic needs into a strategic asset benefitting the business, and to it best value. With over 20 years of experience in chemical trucking and warehouse storage service providing. We can help lighten the burden of trucking and warehouse by offering outsourced services for the independent consultant or the small to medium enterprise so you can focus on your business.

www.islogistics.biz

TRADEASIA INTERNATIONAL PTE LTD

Tradeasia International is a global chemicals trading firm. Established in 2002, we are headquartered in Singapore, with offices at Indonesia, China, Vietnam, Dubai and India. Our product quality and timely delivery services makes us one of the preferred choices for trading chemicals. Our database consists of more than 1000 basic industrial chemicals and few speciality chemicals to choose from and quality is ensured with every purchase.

www.chemtradeasia.com

PEOPLE

SCIC COMMUNICATIONS COMMITTEE

The SCIC Communications Committee has been formed in late 2014 which aimed to implement and drive communication strategies for the Singapore Chemical Industry by aligning the communication efforts and engagements with both internal and external stakeholders.

SCIC would like to extend a warm welcome to the following members to the newly formed committee:

Committee Sponsor**Ms Suiniaty Basirun**

Country Manager, Singapore
Dow Chemical Pacific (Singapore) Pte Ltd

Committee Chairperson**Ms Kow Sin Yee**

Public Affairs Manager
Dow Chemical Pacific (Singapore) Pte Ltd

Committee Members**Mr Jacques Cazin**

General Manager, Manufacturing & Supply, APR
Chevron Oronite Pte Ltd

Ms Lynette Kuang

Public and Government Affairs Advisor
ExxonMobil Chemical Operations Private Limited

Mr Raymond Tan

Assistant Manager, HSE
Mitsui Elastomers Singapore Pte Ltd

Mr Loh Sing Keong

Senior HR and Admin Officer
Petrochemical Corporation of Singapore (Private) Limited

Ms Ca-Mie Desouza

Manufacturing Communications and Social Performance Manager
Shell Eastern Petroleum (Pte) Ltd

Mr Ivan Cheong

Corporate Communications Manager
Singapore Oxygen Air Liquide Pte Ltd

Committee Co-opted Members**Ms Wong Ee Lin**

HR Manager
Chevron Oronite Pte Ltd

Ms Megdeline Yap

Corporate Communications Executive
Singapore Oxygen Air Liquide Pte Ltd

WELCOMING NEW SCIC MEMBERS

SCIC would like to welcome the following companies:

**CORDSTRAP ASIA PTE LTD**

Cordstrap is the world's leading manufacturer of one-way polyester cargo securing systems. Since 1965, Cordstrap has been providing innovative products, technical know-how and unmatched service levels. Today, with over 400 employees, 27 offices in 21 countries, Cordstrap can service customers anywhere in the world.

www.cordstrap.com

ZAHARA ENERGY PTE LTD

Zahara Group's primary operations consist of manufacturing, refining, distilling, recycling and trading of vast range of downstream petrochemical products. We manufactured Industrial Grade Oils, Lubricating Oils and Grease, refined and distilled products like Base Oil, Gas Oil, Furnace Oil and Naphtha, and traded products like Bitumen, Rubber Process Oils and Fuel Oils. The success of the group can be attributed to a strong adherence to its value propositions and principles, which continues to inspire and fuel the growth of the ZAHARA.

www.zaharagroup.com

LAUNCH OF SS 603 : 2014 CODE OF PRACTICE FOR HAZARDOUS WASTE MANAGEMENT (PREVIOUSLY CP 100 : 2004)

The new SS 603 : 2014 which has replaced CP 100 : 2004 was reviewed by a standards Working Group (WG) under the Technical Committee (TC) for Chemistry. The revision includes updates on technology, process, and inclusion of regulatory agencies in Singapore involved in hazardous waste management.

The new standard which has been re-numbered as SS 603 : 2014 was launched on 17 April 2015. This event attracted an overwhelming response of more than 250 participants consisting of the waste management companies, chemical manufacturers, importers and exporters, logistics and distribution service providers,

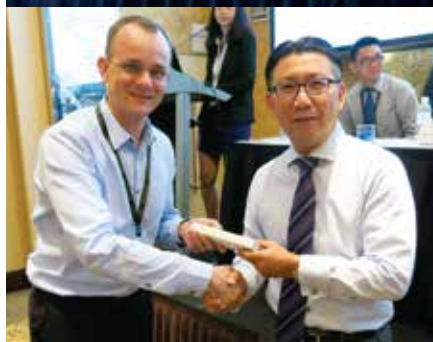
hospitals, relevant government agencies, academia and research institutions.

CP 100 is currently referred to in the National Environment Agency (NEA)'s licensing agreement for hazardous waste collectors and the new standard is expected to replace this standard in NEA's licensing agreement. At the launch, NEA has also indicated that they are looking into extending this SS to license hazardous waste generators.

The launch commenced with a welcome address by Mr Steven Tan, Group Director, Quality and Standards of SPRING Singapore. Dr Keith Carpenter, Chairman of the Chemical Standards Committee (CSC) provided a presentation on 'Chemical Standards and Industry'. This was followed by an overview of the standards under the purview of the TC for Chemistry by its Chairman, Mr Leong Kwai Yin.

The Convenor and members of the WG on CP 100 spoke on the highlights of SS 603 : 2014. Mr Pierre Ng, Senior Engineer of Multi-Lateral Environment Agreements and Toxic Wastes Unit under the Pollution Control Department from NEA gave a presentation on the 'Toxic Industrial Waste Management in Singapore & SS 603'. Mr Vincent Tang, Director of Innovation and Assurance from Eco-Special Waste Management Pte Ltd, was invited to present on 'Case Study on Successful Hazardous Waste Management in Industry'.

Presentation materials for this event are available at the SDO@SCIC events page: <http://scic.sg/index.php/events-a-activities/events-sdo>



The following members of the Working Group on CP 100 who contributed in their individual capacity are gratefully acknowledged:

	Name of member	Organisation
WG Convenor	Mr Richard Reidinger	Eco-Special Waste Management Pte Ltd
WG Members	Mr Au Wing-Kuen	ExxonMobil Chemical Operations Pte Ltd
	Mr Koh Min Ee	National Environment Agency
	Ms Jaime Lim	Ministry of Manpower
	LTC Ng Geok Meng	Singapore Civil Defence Force
	Mr Ong See Hee	MSD International GmbH (Singapore Branch)
	Mr Ong Wee Liang	Singapore Institution of Safety Officers
	A/Prof Ting Yen-Peng	National University of Singapore
	Mr Michael Yan	Vopak Terminals Singapore Pte Ltd
	A/Prof Liya Yu	National University of Singapore

NANOTECHNOLOGY STANDARDS ADOPTION WORKSHOP – HEALTH AND SAFETY

The Technical Committee (TC) for Nanotechnology organised its first nanotechnology standards adoption workshop on 10 March 2015 to provide detailed information of key health and safety standards under ISO/TC 229 to facilitate their implementation in the

workplace and laboratories. A total of 41 participants from the industry, academia, research institutions and relevant government agencies attended the workshop, exceeding the initial target of 20 participants. The participants requested for

more of such workshops in future which is in line with the TC for Nanotechnology's annual work plans.



HIGHLIGHTS OF INTERNATIONAL STANDARDS MEETING IN 2015

Commencement of 1st meeting of Singapore-led ISO Project Group at the ISO/TC 229/JWG 2 Nanotechnologies – Measurement and characterisation Interim Meeting

The ISO/TC 229/JWG 2 Interim Meeting with approximately 30 experts from 12 countries was held at the Czech Office for Standards, Metrology and Testing (ÚNMZ) in Prague, Czech Republic from 18 to 22 May 2015. The ISO project for an ISO Technical Report (TR) on "Separation and size fractionation for the characterisation of metal-based nanoparticles in water samples" which is led by Singapore, had its 1st project meeting in Prague. 12 countries participated in this 1st meeting. The development of this ISO TR will contribute towards the enhancement of the quality of water and in particular to the enhancement

of the quality of water intended for reuse. This will help to address health and safety matters concerning engineered nanoparticles (ENP) and their potential impact on water. The Singapore delegation team to this meeting comprised of the ISO Project Group Leader who is from NUS, Singapore's nominated expert for this project who is from PUB, the Head of the Singapore delegation who is from IMRE, A*STAR and the ISO Project Group secretariat from SDO@SCIC.

More about the TC for Nanotechnology

The TC for Nanotechnology is under the Chemical Standards Committee (CSC) which is managed by the Standards Development Organisation at the Singapore Chemical Industry Council (SDO@SCIC). The CSC is one of the 12 Standards Committees under the Standards Council which is administered by SPRING Singapore, the national

standards body. The TC for Nanotechnology is the mirror committee in Singapore of the International Organisation for Standardisation (ISO) Technical Committee (TC) 229 on nanotechnologies that has already published 43 ISO standards. The TC for Nanotechnology has 4 WGs focusing on Terminology and Nomenclature, Measurement and Characterisation, Health, Safety and Environmental Aspects and Material Specifications. Members of the TC and its WGs form the Singapore delegation at the ISO/TC 229 meetings.

RESPONSIBLE CARE

RESPONSIBLE CARE CONFERENCE 2015

A CONFERENCE ONCE IN 25 YEARS NOT TO BE MISSED!



17 to 18 September 2015
M Hotel Singapore

Singapore Chemical Industry Celebrates 25 Years of Responsible Care in Singapore

2015 is a significant milestone as all Singapore's Responsible Care members celebrate 25 years of Responsible Care in Singapore. To commemorate this milestone achievement, the SCIC Responsible Care Committee will be organising a Responsible Care Conference – "Revitalize the Spirit of Responsible Care" on 17 to 18 September 2015.

A CONFERENCE ONCE IN 25 YEARS NOT TO BE MISSED!

This is a unique opportunity to hear high level sharing by speakers from the global and regional regions on their views and perspective on the overarching vision of Responsible Care and their thoughts on the Responsible Care programme way forward for a sustainable chemical industry.

Conference's themed "Revitalize the spirit of Responsible Care", aims to provide the network platform to gather all SHE practitioners, Responsible Care coordinators, Marketing and Supply Chain professionals working in the chemical and chemical-related industries to exchange ideas and information.

Who Should Attend

- Senior, Mid-level Management and Engineers
- Players in the Chemical Industry who are yet a part of the Responsible Care Programme.

More information about the conference can found at SCIC website www.scic.sg

RESPONSIBLE CARE

SUBMISSION FOR SCIC RESPONSIBLE CARE ANNUAL SELF-EVALUATION AND RESPONSIBLE CARE AWARDS 2015

SCIC Responsible Care Commitment mandates the annual submission of annual self-evaluations for the relevant codes of practice as one of our requirements for Responsible Care member company

The annual exercise for the SCIC Responsible Care self-evaluation and Responsible Care Awards 2014 will start in early July 2015.

All Responsible Care member companies will receive an email notification on the submission exercise from SCIC.

For more information, please contact the SCIC Responsible Care co-ordinator, Ms Agmer Lee at agmerlee@scic.sg

WELCOME NEW RESPONSIBLE CARE MEMBER COMPANY

SCIC warmly welcomes the following company into the Responsible Care family:

Rhenus Logistics Asia Pacific Pte Ltd

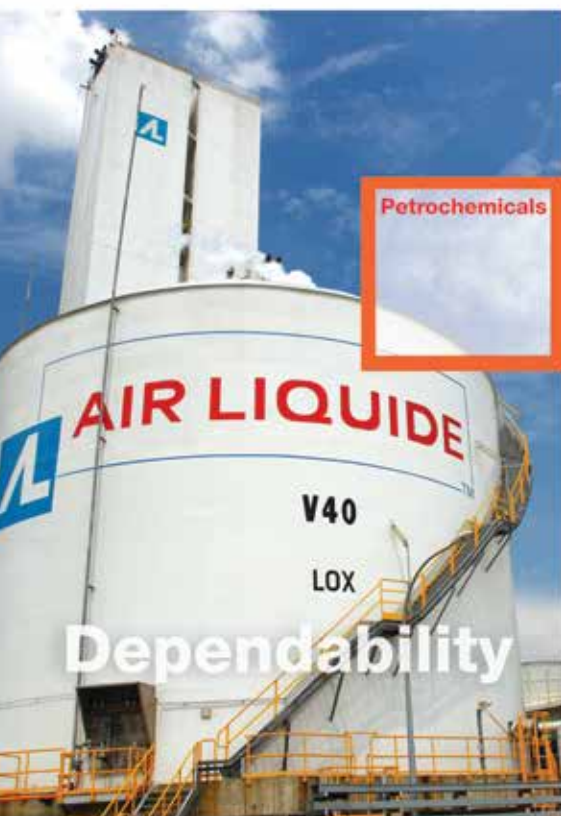


FORTHCOMING EVENT (JULY 2015 – SEPTEMBER 2015)

DATE	COURSE / SEMINAR
03 July 2015	Accidents Investigation Workshop
28 July 2015	Training Workshop On Globally Harmonized System (GHS)_for Chemical users
28 August 2015	SCIC- Annual Golf Tournament
Aug 2015	Training Workshop On Globally Harmonized System (GHS)_for Chemical users
17-18 Sept 2015	SCIC-Responsible Care Conference 2015
Sept 2015	Training Workshop On Globally Harmonized System (GHS)_for Chemical users

** Note: SCIC may change/ amend the events listed above without any prior notice.

For more information on the dates of these training courses, you may visit our website at www.scic.sg or contact SCIC secretariat@scic.sg



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