

- SCIC Change of Leadership
- 21st Meeting of Ameicc Working Group on Chemical Industry (WG-CI)



ASIA PETROCHEMICAL INDUSTRY CONFERENCE
SINGAPORE

SINGAPORE PLAYED HOST TO **ASIA'S MOST IMPORTANT** PETROCHEMICAL INDUSTRY CONFERENCE



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CHEM DIGEST



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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

ASIA PETROCHEMICAL INDUSTRY CONFERENCE 2016 - SINGAPORE



Organised by SCIC, Singapore proudly hosted the Asia Petrochemical Industry Conference 2016 from 19 to 20 May at the Raffles City Convention Centre.

APIC 2016 in Singapore has attracted more than 1,100 delegates from 39 countries in attendance and served as an excellent business networking platform for companies from all over the world. It has been deemed by many within the industry as the equivalent to the EPCA (European Petrochemical Association) Conference in Europe and the NPRA (National Petrochemical and Refiners Association) Conference in the US.

Themed “The New Challenge: Promoting Flexibility, Innovation and Efficiency to Drive Sustainable Growth”, industry players will

have to respond to challenges in an innovative and sustainable manner with today’s rapidly changing economic conditions.

Hence, APIC 2016 aimed to provide key market insights for the petrochemical industry to expand their reach into high growth markets, employ new strategies to

improve cost effectiveness and productivity and build on core business capabilities.

The petrochemical industry will continue to be the solutions provider in helping to address environmental and climate change issues. It is also our commitment to help reduce carbon footprint and greenhouse gases emissions.



Networking sessions with the exhibitors

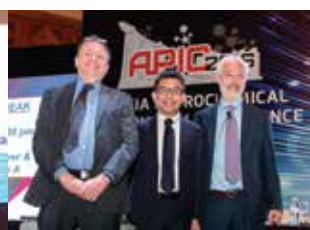
Day-1 of the conference saw the marketing seminar by the marketing consultants of HIS Chemical, Platts, ICIS and Nexant.



Marketing seminar by HIS Chemical



Marketing seminar by Platts



Marketing seminar by Nexant



Marketing seminar by ICIS

A VVIP dinner was also hosted by SCIC at the Equinox and was graciously attended by the evening's Guest of Honour, Mr S Iswaran, Minister for Industry, Ministry of Trade & Industry.



The networking dinner provided an excellent platform for a lively evening of discussions and exchanges between the senior executives of many key MNCs in the petrochemical, chemical and chemical-related industries from around the world as well as invited guests from the government agencies.



Delivery of the opening address by SCIC Chairman, Dr Tay Kin Bee

As per the tradition of APIC, day-2 kicked off with the opening addresses by the chairmen and presidents of the 7 APIC steering committee member countries of Singapore, Japan, Korea, Taiwan, Malaysia, Thailand and India.

This was followed by the keynote speeches by the senior executives from 2 of the world's leading chemical companies on the following topics:

- **“Integration and Innovation for a Sustainable Future”**
by Mr Kurt Aerts, Vice President, Global Specialty Elastomers and Butyl Business, ExxonMobil Chemical Company
- **“Growing Asia's Petrochemicals Together”**
by Mr Olivier Thorel, Vice President Global Intermediates and Ventures, Shell Chemicals



Keynote speech by Mr Kurt Aerts Keynote speech by Mr Olivier Thorel Panel discussion facilitated by Mr Wim Roels

An engaging panel discussion ensued which was facilitated by Mr Wim Roels, CEO, Borouge Pte Ltd



The afternoon programme provided the delegates a further detailed discussion during the committee breakout sessions on:

- Chemicals
- General Matters and Raw Materials
- Polyolefins
- Polyvinyl Chloride
- Synthetic Rubber & Fibre Raw Materials
- Styrenics



APIC 2016 was brought to a close with a farewell party being organised for all delegates.

Childhood's memories such as the ice-cream man and kacang puteh man were part of the fringe activities for the party. Overseas delegates were also provided a copy of the comical guide to Singlish as a memento to bring home.



SCIC would like to extend its gratitude to members of APIC Steering Committee Member Countries, SCIC APIC Advisory Committee, its sponsors, partners, speakers as well as all the delegates, towards the success of APIC 2016.

APIC 2017 would be held in Sapporo, Hokkaido from 18 to 19 May and would be hosted by Japan Petrochemical Industry Association (JPCA).

WELCOME NEW MEMBERS

SCIC would like to welcome the following companies:

■ Eagletainer Logistics Pte Ltd

Eagletainer Logistics is a Singapore incorporated full service ISO-tank container operator operating a young fleet of ISO tank containers which are primarily owned, for carriage of food grade; non-food grade; oleo-chemical products, petroleum and petrochemical products.

We offer complete Logistics Services globally tailored to your requirements and specifications.

www.eagletainer.com

■ TUV Rheinland Singapore Pte Ltd

TUV Rheinland, established in Cologne Germany since 1872, is a leading international technical service provider for testing, inspection, certification, consultation and training, to help ensure safety, quality and efficiency.

In line with MHI Regulations, our Singapore team is providing services in Functional Safety, QRA and Safety Case for Chemical industries.

<http://www.tuv.com/en/singapore/home.jsp>

WELCOME NEW COMMITTEE MEMBERS

SCIC would like to extend a warm welcome of the following members to SCIC Committees:

JURONG ISLAND INFRASTRUCTURE COMMITTEE

Chairman

Mr Tan Kit Voon

Senior Manager,
Large Industries Operations
Singapore Oxygen Air Liquide
Private Limited

Members

Mr Leo Kum Yuen

Production Manager
Lucite International Singapore Pte Ltd

Mr Christopher A Varel

Environmental Engineering
Section Supervisor
ExxonMobil Chemical Operations Private Ltd

COMMUNICATIONS COMMITTEE

Members

Ms Eunice Chin

HR Manager, AP Region - Oronite
Chevron Oronite Pte Ltd

Mr Gan Wei Lee

Senior HSE Executive
Mitsui Elastomers Singapore Pte Ltd

LOGISTICS & DISTRIBUTION COMMITTEE

Members

Ms Lam Xinyi

Land Logistics Manager (SG/MY)
Shell Eastern Chemicals (S)

Mr Peter Lee

Road Transport Warehouse Manager
Dow Chemical Pacific (Singapore) Pte Ltd

SME COMMITTEE

Members

Mr Yee Chee Fah

Deputy General Manager
Yang Kee Logistics (Singapore) Pte Ltd

PROCESS AND ENGINEERING COMMITTEE

Member

Mr Ong Beng Lee

Technical Manager
Lucite International Singapore Pte Ltd

APPRECIATION TO COMMITTEE MEMBERS

SCIC would like to express its thanks to the following committee members for their contributions to SCIC during their tenure as a member of the following committees:

JURONG ISLAND INFRASTRUCTURE COMMITTEE

Ms Ho Mui Li

ExxonMobil Chemical Asia Pacific Pte Ltd

COMMUNICATIONS COMMITTEE

Ms Wong Ee Lin

Chevron Oronite Pte Ltd

Mr Raymond Tan

Mitsui Elastomers Singapore Pte Ltd

LOGISTICS & DISTRIBUTION COMMITTEE

Ms Karen Ho

Dow Chemical Pacific (Singapore) Pte Ltd

SME COMMITTEE

Mr Chris Koh

Yang Kee Logistics (Singapore) Pte Ltd

PROCESS AND ENGINEERING COMMITTEE

Mr Leo Kum Yuen

Lucite International Singapore Pte Ltd

SCIC CHANGE OF LEADERSHIP

Dr Tay Kin Bee has handed over the baton of chairmanship to Ms Suiniaty Basirun who is also the Business Director and Country Manager of Dow Chemical Pacific (Singapore) Pte Ltd. Mr Andrew Lim, Deputy CEO of Pride-Chem Industries Pte Ltd, has also taken over the role of SCIC Vice-Chairman from Mr LRS Mani who has stepped down after serving for 3 terms. Mr Mani will continue to support SCIC as a Director of the Board.

The Board and Secretariat of SCIC would like to extend our heartfelt appreciation to Dr Tay and Mr Mani for their commitment and contributions towards SCIC during their tenures as Chairman and Vice-Chairman respectively.

SCIC looks forward to adding greater value to members' business operations and the continued extension of this support under the new leadership of Ms Suiniaty and Mr Andrew Lim as we forge ahead in this new chapter of the organisation's history.



Ms Suiniaty Basirun



Mr Andrew Lim

NEW MEMBERS TO SCIC BOARD OF DIRECTORS

SCIC would like to extend a warm welcome to:



MR WIM ROELS,
CEO of Borouge Pte Ltd
as the newest board members of SCIC.



APPRECIATION OF CONTRIBUTIONS RENDERED TO SCIC CHAIRMAN – DR TAY KIN BEE

The board and secretariat office of SCIC would like to extend our heartfelt appreciation to Dr Tay Kin Bee for his invaluable support and contributions as Chairman of SCIC over the past three years. In his tenure as the Chairman, he had represented SCIC in various external committees such as the GHS taskforce and the Chemical Standards Committee (CSC) administered by SPRING Singapore.

SCIC extends its best wishes to Dr Tay in his future endeavours.



APPRECIATION OF CONTRIBUTIONS RENDERED TO SCIC DIRECTOR – MR JACQUES CAZIN

The board and secretariat office of SCIC would also like to extend our thanks to Mr Jacques Cazin of Chevron Oronite Pte Ltd for his contributions towards SCIC. During his tenure as a Director of the Board from 2014 to 2016, he had led the SCIC Jurong Island Infrastructure Committee as well as an active contributor in other SCIC committees of Industry Resource Development and Communications. Mr Cazin was also part of the APIC 2016 Advisory Steering Committee which saw the successful organisation of the event in Singapore.

SCIC extends its best wishes to Mr Cazin in his new assignment.

SCIC ANNUAL GENERAL MEETING 2016



SCIC held its ninth Annual General Meeting (AGM) on 16 June 2016 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:

- 1) Financial report for FY ending 31 Dec 2015
- 2) Re-appointment of Messrs YM Woo & Co as company auditor for FY 16
- 3) Re-election of Board Members retiring by rotation for term 2016/2018:
 - **Mr Jacques Cazin**,
General Manager,
Chevron Oronite Pte Ltd
 - **Mr Leaw Tiew San**,
CEO (Contract Logistics, SEA),
CWT Logistics Pte Ltd
 - **Ms Suiniaty Basirun**,
Business Director, Country Manager,
Dow Chemical Pacific (Singapore) Pte Ltd
 - **Mr Georges Grosliere**,
Manufacturing Director,
ExxonMobil Chemical Asia Pacific
 - **Mr Shamsheer Zaman**,
Managing Director,
Linkers (Far East) Pte Ltd
 - **Dr Benjamin James Harris**,
General Manager,
Lucite International Singapore Pte Ltd
- 4) Election of Board Members for term 2016/2018:
 - **Mr Shuji Matsuyama**,
Director/General Manager (Plant),
Mitsui Elastomers Singapore Pte Ltd
 - **Mr Akira Yonemura**,
Managing Director,
Petrochemical Corporation of
Singapore (Private) Limited
 - **Mr Andrew Lim Choon Ann**,
Deputy CEO,
Pride-Chem Industries Pte Ltd
 - **Mr Stephen 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.

LEARNING & SHARING SESSION –“ROLE OF HUMAN ERROR IN PROCESS SAFETY”



One of the greatest threats to process plant safety is Human Error. Human error is any human action (or inaction) that deviates from its primary intention and expectation, in achieving the desired outcome. Human error includes lapses and intentional violations that may contribute to accidents.

A Learning & Sharing Session on “Role of Human Error in Process Safety” was organised by the SCIC’s Process and Engineering Committee on 27 May 2016 with 21 participants. The industry players who attended had better understanding on how human error leads to accidents through learning from real case studies in the Chemical Industry. The interactive group activity helped participants reflect on how to prevent similar cases from occurring and improvements to be made.

The following two case studies were shared:

- 1) **CSB video on DuPont’s LaPorte:**
<http://www.csb.gov/duPont-laportefacility-toxic-chemical-release/>
- 2) **ISO tank incident:**
https://www.wshc.sg/wps/PA_IFWSH-CInfoStop/DownloadServlet?infoStopYear=2014&infoStopID=IS2010012500136&folder=IS2010012500136&file=cs2.pdf

HUMAN ERROR CLASSIFICATIONS

LEARNING GAP

Due to lack of knowledge or not aware of the consequences
(*Don't know*)

MEMORY GAP

Not able to use the skill or knowledge at the time
(*Know but don't remember*)

INCONSISTENCY

Inconsistent performance
(*Having knowledge but variability in methods*)

APPLICATION

Wrong outcomes
(*Know but applied incorrect action*)

OMISSION

Missing information or steps, using wrong tools
(*Know but missing step or action*)

DECISION

Inappropriate decision or behaviour
(*Wrong decision in a given situation*)

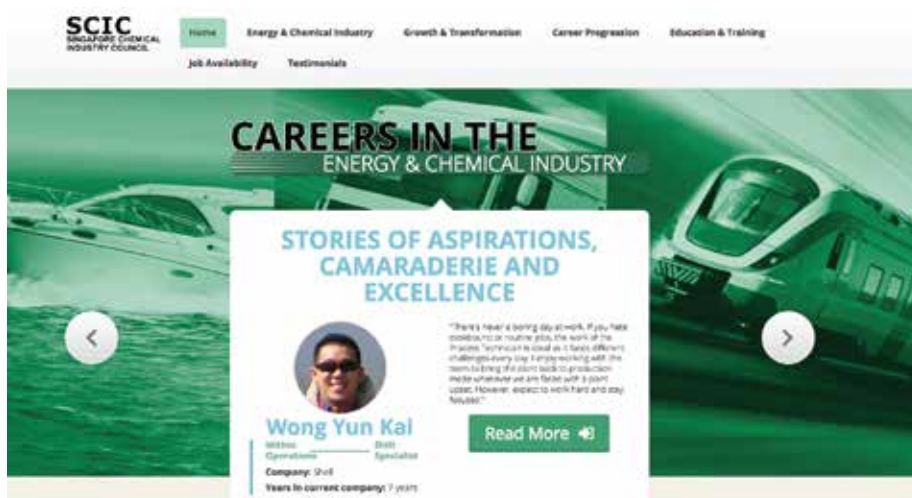
JOB POSTING PLATFORM FOR MEMBERS

Since the launch in last Oct, a visit hits of 19,000 has been recorded for 3 months to this new SCIC microsite (www.scic.sg/index.php/career-and-more) focusing on careers in the Energy and Chemical Industry.

“It’s the period now for the new Graduation Batch”

Post your job vacancies to reach out to more entry-level candidates!

For more information on posting instruction, please contact SCIC at secretariat@scic.sg



EDUCATORS' ENGAGEMENT PROGRAMME 1-DAY IMMERSION PROGRAMME IN THE CHEMICAL INDUSTRY

Raising greater awareness amongst the tertiary students about the attractiveness of a career in the chemical industry has always been an ongoing effort by the chemical industry.

The Educators' Engagement Programme is one new initiative of the SCIC Chemical Industry Manpower Advisory Committee (CHIMAC), targeted at the Teachers, Lecturers and Career Advisors who are the influential advisors to their students in orienting their initial career choices. The objective of the initiative is to provide them an enhanced and current understanding about the chemical industry such as the technologies, actual working environment, nature of the job, career progressions, career opportunities, job challenges, welfare & benefits through a 1-day immersion programme.



Focus group discussions with different function leaders

Led by CHIMAC's workgroup which comprising members from Chevron Oronite, Lucite, Dow Chemical and Shell, a pilot session of the programme was organised on 15 and 17 March 2016. Positive feedback has been received from the 37 Lecturers from the 5 Polytechnics and ITEs who had participated in the programme.

The 1-day programme is structured as follows:

- Overview of the Singapore Chemical Industry
- Site Tour
- Focus group discussion with function leaders

The focus group discussions with the different function leaders including the HR personnel, Supervisory personnel as well as Junior Technicians have provided an interactive session of personal experiences sharing and exchange of information with the Lecturers.

CHIMAC will continue in this outreach initiative and encourage SCIC member companies to support as hosting site for such outreach programmes. Stay tuned for more information and updates from the SCIC Secretariat office.

PRODUCTIVITY COUNCIL'S TRAINING SEMINAR ON ACTIVITY ANALYSIS

On 24 May 2016, the CII pilot project work group, under the Productivity Council, with the support of the Singapore Chemical Industry Council (SCIC), the Association of Process Industry (ASPRI), the Construction Industry Institute (CII), NUS and EDB, organised the first training seminar for Activity Analysis – the first productivity initiative to be introduced during the course of the three-year partnership between the Productivity Council and CII.

Activity Analysis is a continuous process of measuring and improving the amount of time that workers spend on direct work. This best practice involves detailed sampling of work activities during every hour of a typical work day and assessing how effectively time is spent by the workers. Activity Analysis serves as a yardstick for continuous improvement through observation, identifying areas of improvement, implementation and review.

The training aimed to instruct site Management, Planners, supervisors and engineers from process plants and engineering and construction companies on the details of implementing Activity Analysis. To aid in the implementation effort, participants were also briefed on the preparation steps and logistics involved. Key lessons learnt from pilot projects conducted in major chemical plants in Singapore were shared.



In order to engage more process plants and engineering companies to join in the national productivity initiative, an annual Productivity Improvement Workshop (PIW) will be held annually to showcase the key findings and introduce best productivity practices developed by the Productivity Council. This year's PIW has been scheduled on 18 July 2016. Invites will be sent shortly to process plants and engineering companies.

Meanwhile, the Productivity Council and its working groups continue to work towards launching new initiatives to improve productivity in the Process Construction and Maintenance industry. The next run of Activity Analysis training has been scheduled on 19 July 2016.

Additionally, the Productivity Council will be organising the first training for 10-10 Analysis and Productivity Benchmarking on 20 July 2016. Both initiatives aimed to benchmark management practices and work performance in plant shutdowns, turnarounds and outages. This benchmarking effort aims to assist companies to identify key strengths and weaknesses and to formulate strategies to improve their productivity.

Stay tuned and please contact our SCIC Secretariat at secretariat@scic.sg if you have any enquiries.



21ST MEETING OF AMEICC WORKING GROUP ON CHEMICAL INDUSTRY (WG-CI)



Government and Industry representatives from ASEAN Member States (AMSs) and Japan attended the 21st Meeting of AMEICC WG-CI which was hosted by the Philippines at the Dusit Thani Hotel, Makati City from April 28 – 29, 2016. The 2nd Technical Working Group on the ASEAN-Japan Chemical Safety Database (AJCSD) was held prior to this meeting on April 27.

The two-day meeting was co-chaired by Mr. Tadashi Mogi, Director, Chemicals Division, Manufacturing Industries Bureau, METI, and Ms. Ma. Corazon Halili-Dichosa, Executive Director, Board of Investment (BOI) of Philippines.

The opening address was made by Undersecretary Ceferion S. Rodolfo, BOI Managing Head who welcomed the delegates to the meeting which he mentioned, would be a good opportunity for delegates to share developments, initiatives, and trends in the industry and economies.

During the meeting, a representative from the Ministry of Economy Trade (MTI) reported on the global current state of the petrochemical industry in Japan, as well as the anticipated developments from the

chemical industry. The National Institute of Testing and Evaluation (NITE) of Japan, operator of the AJCSD, announced the official launch of the operation of the AJCSD and demonstrated the fully operational version of the AJCSD focusing on the new search functions. The updates on chemical safety management policies in AMSs and Japan as well as other issues pertaining to chemical safety issues such as ICCM4, SAICM, ChemSHERPA and Lead in Paint were also provided at this meeting.

Ms Cissie Yeung and Mr Leendert van Dijk, representatives from Singapore Chemical Industry Council (SCIC) who are leading the ASEAN Regulatory Cooperation Project (ARCP) made an introductory presentation on this project which is a joint initiative by the American Chemistry Council (ACC), Japan Chemical Industry Association (JCIA)

and SCIC, to the delegates present at this meeting. The need for more efficient interaction of different regulatory regimes which will help to reduce Non-Tariff Barriers (NTB) was emphasised in view of the changing regulatory landscape and increasing regulatory intensity and complexity. The benefits of this regulatory cooperation were highlighted and the team would be looking to include Laos, Myanmar, Cambodia and Brunei into the project in time to come. The concept and objective of the ARCP was noted by the Meeting, and delegates were provided with a brochure containing information on the ARCP. More information on the ARCP could be found on <http://www.scic.sg/asean/>



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

Over the years, ISO Tank Containers have become a more preferred way for bulk transportation for liquid products distribution process. With over 30 years of experience and exposure as a consultant and specialist in the field, the one-and-a-half-day course was conducted by Mr Paul Sireci and organized by SCIC on 14 to 15 April 2016.

As most of the products transported in the Chemical Industry are hazardous by nature, it is important to have proper training and knowledge of this technical equipment before taking charge of operational activities. Participants who attended this course gained 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.

To further enhance the participants' understanding of the topics taught in class, an opportunity was given to participants for an on-site visit to CWT Integrated Pte Ltd on the second day of the training course to inspect an actual ISO Tank container. On top of the inspection, the half day practical session also includes a short sharing session on the different valves and component of an ISO Tank.

SCIC would also like to express our gratitude towards CWT Integrated Pte Ltd for their continuous support in allowing SCIC to conduct the practical session at its depot and NewPort Tank Containers Singapore Pte Ltd in providing an ISO tank on-site.



SCIC ANNUAL GOLF TOURNAMENT 2016

YOUR SPONSORSHIP IS JUST 1 STROKE AWAY...

SCIC is organising our annual Golf Tournament on 9 September 2016 at the Raffles Country Club. We welcome your sponsorship for this tournament in various ways such as golf items, gifts and prizes.

For more information, please contact the SCIC Secretariat Office at **6267 8891** or email us at **secretariat@scic.sg**

CALLING ALL CHEMICAL COMPANIES



Be Part of ChemEx 2016 –

the unique Chemical Industry Profiling Platform to reach out to 600-800 tertiary students in Chemical Engineering and related course.

For more information on the participation and sponsorship of ChemEx, please contact the SCIC Secretariat Office at **6267 8891** or email us at **secretariat@scic.sg**

THE SME LANDSCAPE IN THE SINGAPORE CHEMICAL INDUSTRY

SMEs play a vital role to support the growth and vibrancy of any manufacturing cluster in Singapore, contributing 50 percent to the nation's GDP.

The chemical industry, being one of the biggest manufacturing clusters in Singapore, is no different. As one of the top petrochemical hubs in the world, we are home to a vibrant SME community that comprises a wide spectrum of companies ranging from traders, distributors to chemical logistics providers and specialty manufacturers.

Over the course of the next few newsletters, more will be shared about the different services and capabilities that each of these sub-segments have to offer.

SME CHALLENGES AND THE SME VOICE

However, vibrant as the community may be, it is not shielded from various challenges that have arisen under current market conditions and ever-changing local landscape. Manpower constraints, land and space crunch, capability building and regulatory compliance are but some of the issues that have been highlighted to SCIC.

To effectively address these concerns, require a collective effort from both the association and industry members. SCIC believes this to be the best form of engaging all stakeholders and the SME Committee was formed to be the SME voice for the industry. Represented by distributors, logistics providers and manufacturers, we are here to hear from you and to work with you to ensure that our community grows and contributes to our economy.

If you are a SME in the chemical industry, we would like to hear from you. Contact the SCIC secretariat at secretariat@scic.sg today!

Contributed by: SCIC SME Committee



SAFETY CASE REGIME JOURNEY

A key milestone for Joint Agency/Industry Workgroup (JWG) occurred with the issuance of Draft Technical Guidance for public consultation at end April. JWG continued to meet on a weekly basis to complete the Assessment Guideline which provide a reference document for how Safety Case assessment will be conducted in the future.



JWG weekly meeting in progress

Meanwhile, two Safety Case Knowledge-Building workshops have been conducted by JWG. Workshop is targeted at equipping Industry personnel of Major Hazard Installations (MHI's) with necessary knowledge to plan and prepare for Safety Case implementation at their respective companies. Participation was overwhelming and workshop feedback received was very positive. Learnings from the first workshop was incorporated into the second workshop. Two more workshops are planned to ensure adequate coverage for remaining MHI's.

It is recognized that there will be consultant support needs in providing Expert Training to MHI's personnel to enable them to prepare Safety Case; or to supplement MHI's internal resource in Safety Case development. In anticipation of this, MOM has taken initiative to update several international consultants, with Safety Case experience in other countries and also communicated Curriculum Development Advisory (CDA) to help guide development of Safety Case Expert training workshops. Such workshops are expected to commence in 4th quarter.

With the completion of Safety Case technical guidance, the enactment of MHI



Mr Go Heng Huat, Director (OSH Specialists Department) of MOM, delivering his opening address at the Safety Case Knowledge-Building workshop



Breakout Group Discussions on Safety Case

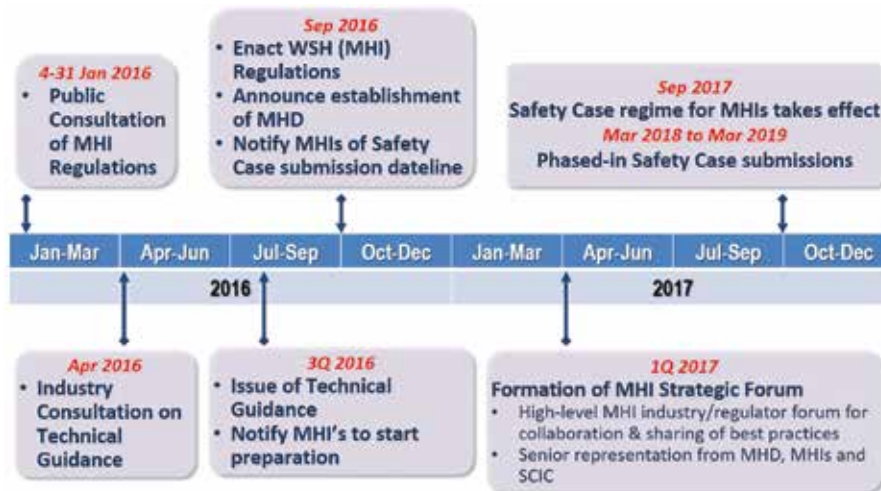
regulations is expected in September 2016, coming into effect September 2017. Communications of timing for Safety Case submission for each MHI will occur in September 2016. Safety Case submission will be done in 3 phases from March 2018 to March 2019.

To avoid duplication for MHI's, factory registrations will automatically be converted to MHI registrations with effect from September 2017, when MHI regulations comes into effect.

To further enhance Industry/Agencies interface and coordination, it is also expected that a single front agency, Major

Hazard Department (MHD) representing MOM, SCDF and NEA, will be formed in September 2016. All Safety Case and QRA matters will be handled through MHD.

SUMMARY ON MHI IMPLEMENTATION TIMELINE



Since its inception, the JWG has been working tirelessly to meet a challenging timeline. During the last Safety Case Joint Sponsor meeting held in April, various positive remarks surrounding the joint Agencies/Industry approach were echoed in recognition of the collaborative work process taken and the teamwork displayed in achieving its objective. SCIC Board Director and Sponsor of the SCIC MHI Committee, Mr Stephen Fowler commented that this work process could be adopted as a model for other future regulatory development.



“As we move forward into implementation, I believe that the critical success factor will be building industry and regulator capability. I think the recent workshops are a good start, but are really only a start in developing practitioners with the necessary expertise to deliver the quality of Safety Cases that will make our industry safer – it will be a multi-year journey. ”

Mr Stephen Fowler

(GM, Shell Jurong Island),
SCIC Board Director and Sponsor of the SCIC MHI Committee.



“I value the practical knowledge and experience of JWG industry members and unwavering efforts of my MOM, NEA, SCDF, EDB and JTC colleagues. The collaborative efforts have produced Safety Case Technical Guidance and capability building programmes. ”

Ms Jaime Lim

Senior Assistant Director of the Major Hazards Department (MOM) and
Co-Lead of Safety Case Government-Industry Joint Workgroup



“This joint collaborative approach in developing the guidelines right from initial phase of Safety Case regime development has been very effective in delivering a successful outcome. Joint Work Group process provided industry and regulators to understand each other's perspective, work processes and constraints better and help develop a fit for purpose Safety Case Technical Guidance document. This was only possible due to hard work put in by members of JWG and support team from regulatory agencies and SCIC. ”

Mr Amit Bhatnagar

(Singapore Refining Company),
SCIC MHI Committee Member and Co-Lead of Safety Case Government-Industry Joint Workgroup

APPRECIATION LUNCH FOR CHEMICAL STANDARDS PARTNERS

An appreciation lunch was organised by SDO@SCIC to thank the standards partners from the Chemical Standards Committee and its Technical Committees and Working Groups for their contributions in FY 2015. The deep commitment and efforts of the CSC standards partners have made it possible for the CSC to meet its targeted KPIs when a total of 20 standards were completed in FY 2015. 98 chemical standards partners attended the appreciation lunch at the Shahi Maharani North Indian Restaurant in Raffles City Shopping Centre on 2 Mar 2016 which enabled members from the different committees to meet and share their experiences in standards development.



NANOTECHNOLOGY STANDARDS ADOPTION WORKSHOP – MEASUREMENT AND CHARACTERIZATION



The Technical Committee (TC) for Nanotechnology organised its second nanotechnology standards adoption workshop on 22 Mar 2016 to provide detailed information on the development of nanotechnology standards related to measurement and characterisation. Equipment manufacturers involved in ISO/TC 229 nanocharacterization standardisation were invited to speak.

The applications of nanocharacterization techniques and challenges in standardisation were also shared at the workshop. 2 speakers from Perkin Elmer and AVA presented on the nanomeasurement techniques whereas the NUS Centre for Advanced 2D Materials shared on the protocols and standards for graphene flake characterization. More than 50 participants from the users and manufacturers of instruments related to measurement, equipment, relevant regulatory bodies, and other academia and research institutions attended the workshop, exceeding the initial target of 20 participants.



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 49 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®
OUR COMMITMENT TO SUSTAINABILITY

WHAT IS RESPONSIBLE CARE?

Responsible Care is the chemical industry's global voluntary initiative under which companies, through their national associations, work together to continuously improve their health, safety and environmental performance as well as to communicate with stakeholders about their products and processes. More information can be found at <https://www.icca-chem.org/responsible-care/>

The Responsible Care ethic helps our industry to operate safely, profitably and with due care for future generations, and was commended by the United Nations Environment Programme (UNEP) as making a significant contribution to sustainable development at the World Summit on Sustainable Development in 2002.

Interested companies can visit the SCIC Responsible Care website, www.scic.sg/rc for more information or contact the SCIC Responsible Care Co-ordinator, Ms Agmer Lee at agmerlee@scic.sg

SCIC RESPONSIBLE CARE COLLABORATION AND RECOGNITION SCHEME WITH GOVERNMENT AGENCIES

The Singapore Government agencies regulating the chemical industry such as the Ministry of Manpower (MOM), the National Environment Agency (NEA) and the Singapore Civil Defence Force (SCDF) recognise the importance of the Responsible Care programme in contributing to the high standard of the health, safety and environment practices in the chemical industry.

As of 2012 and 2015, SCIC has collaborated and developed recognition scheme for Responsible Care signatory members with SCDF and MOM's WSHC respectively.

The **SCIC-SCDF Responsible Care Collaboration and Recognition Scheme** allows Responsible Care signatory members who have achieved Responsible Care Gold Award for CAER Code and have also met the standard equivalent to SCDF's CERT audit (documentation) requirement to be recognised under the scheme developed by SCIC and SCDF. This recognition scheme allows the organization to seek exemption for the documentation assessment component under the annual SCDF CERT audit scheme in the following year of their recognition.

The **SCIC-WSHC Responsible Care Collaboration and Recognition Scheme** allows Responsible Care signatory members who have achieved Responsible Care Achievement Award or higher for Employee Health & Safety (EHS) to be recognised under the scheme developed by SCIC and WSHC. This recognition scheme allows the organization to seek direct entry to WSHC's bizSAFE Level 3.

SCIC will continue to work on identifying possible collaborations with other various government agencies and develop schemes that will help to encourage more members to adopt the Responsible Care programme.



SUBMISSION FOR SCIC RESPONSIBLE CARE ANNUAL SELF-EVALUATION AND RESPONSIBLE CARE AWARD 2016

The SCIC Responsible Care commitment mandates the annual submission of the self-evaluations for the relevant codes of practices as one of our requirements for Responsible Care member company.

The annual exercise for the SCIC Responsible Care self-evaluation and Responsible Care Awards 2016 will start in early July 2016.

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

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



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FORTHCOMING EVENT (JULY 2016 – SEPTEMBER 2016)

DATE	EVENTS
08 July 2016	Training Workshop On Globally Harmonized System (GHS)_for Chemical users
12 July 2016	Safety Case Knowledge-Building Workshop
29 August 2016	Training Workshop On Globally Harmonized System (GHS)_for Chemical users
30 August 2016	Safety Case Knowledge-Building Workshop
31 August 2016	Process Safety Management Seminar
09 September 2016	SCIC – Annual Golf Tournament 2016
September 2016	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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SPONSOR A LOGO PLACEMENT IN THE SCIC PUBLICATION ON SPECIAL COMMEMORATIVE BOOK

Incorporated on 28 June 2007, the year 2017 marks a significant milestone for SCIC and its members on the anniversary of our 10th year as an independent entity.

The Chemical industry has seen a huge transformation since its introduction in the 1960s and the SCIC is proud to have played a role in this evolution. As part of the commemorative journey, the SCIC Communications Committee is working on a special commemorative book that will highlight the key milestones of SCIC that have occurred alongside the development of the Chemical Industry over the past decade.

As members of SCIC that have contributed so much to this key industry of Singapore, we would like to invite members to support and sponsor a logo placement in this publication, which would be launched in conjunction with the SCIC Annual Dinner in Mar 2017.

2000 copies of the publication would be printed and be circulated to all Members, Industry Partners, Government Agencies, Educational Institutions, Community Development Councils as well as our overseas Counterpart Associations.

For more information, please contact the SCIC Secretariat at **6267 8891** or email us at secretariat@scic.sg