

# SCOPE

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MCI(P)140/12/2017



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## SCOPE EDITORIAL COMMITTEE

- Tan Thian Chye • Lincoln Lee • Cerine Lim
- Loh Sing Keong • Mak Kuok Hwa • Ngai Jia Ming • Lionel Cai

# Annual PCS-Contractors HSE Meeting



Bernard Leong  
HSE



PCS Management Team ready to kick off the meeting

The Annual PCS-Contractors HSE meeting was held on 23 January 2018. This meeting, held annually, is all the more important, for contractors Management to touch base and reaffirm their commitment to uphold and align to PCS expectations of a healthy and safe workplace.

A total of 33 “in-house” contractor companies (those pre-qualified and approved contractors who have a long-term daily maintenance or unit rate contract with PCS), as well as SDM contractors participated in the event.



Ms Ng CL  
reviewing past  
performance

Out for Safety (SOS), and the fourth pillar, being the commitment and alignment of contractor companies, in managing systems and workforce well.

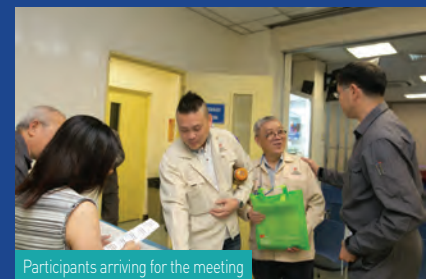
Aside from the review of past year health and safety performance of contractors and the presentation of the Objectives and Targets for 2018, contractor representatives had the opportunity to engage PCS Management Team and Petrochemical Complex Contractors Association's President on the on-going programmes, as well as initiatives for an incident-free Shut Down Maintenance (SDM).

PCS Managing Director, Mr Akira Yonemura, in his opening address, highlighted the extended and challenging SDM, made more so with new and transitional workers. He touched on the foundation of PCS' excellent health and safety performance, with three pillars founded upon three main programmes, Behaviour Based Safety (BBS), Stop and Report (STAR), and Speak

In a departure from the norm, where the HSE Team did the presentations, in introducing new blood as well as inter-Function exposure, the past year review was conducted by the Manager, Production Planning & Coordination, Ms Ng Chai Ling.

The event culminated with the recognition of contribution by contractors through the presentation of Safety Performance Awards.

In sharing programmes and practices, the Workplace Safety and Health Council (WSHC) was invited to witness the event. Four members witnessed the close and all-inclusive partnership between PCS and its contractors.



Participants arriving for the meeting



Participants at the meeting



Proof that SCOPE makes good reading



PCS Management and PCCA President taking questions from the audience



Lo Hei for a healthy and safe year



With the delegation from WSHC

Prior to tucking into the sumptuous food prepared by the PCS Canteen operator, running up to the Lunar New Year, a special auspicious “lo hei” (捞起, literally meaning “tossing up good fortune”) to not only herald in good fortunes and prosperity, but also for a healthy and safe workplace.

# bizSAFE Convention 2018



**Bernard Leong**  
HSE

Since 2007, the annual bizSAFE Convention celebrates the achievements of bizSAFE communities, and provides non-bizSAFE organisations opportunities to understand the benefits of integrating bizSAFE into their business model. Themed 'Enabling a Healthy Workforce, Creating Safe and Secure Workplaces', the bizSAFE Convention 2018 celebrates its tenth year, and is the



key platform for leading WSH professionals and bizSAFE Service Providers to showcase their solutions and proposals aimed at promoting healthy, safe and secure workplaces.

MD receiving the award from Mrs Josephine Teo, Minister, Prime Minister's Office, Second Minister for Manpower & Second Minister for Home Affairs

bizSAFE is a five-step programme that assists companies to build up their WSH capabilities so that they can achieve quantum improvements in health and safety standards at the workplace.

bizSAFE was launched at a time when few companies took an interest in workplace health and safety. So, to promote bizSAFE adoption, help came through the handful of companies with strong WSH values. PCS was one of them, and today, these pioneering companies have graduated to become bizSAFE Mentors. Five Mentors were recognised at the Convention.

PCS continues to guide and level-up in-house contractors in the bizSAFE journey. Among the programmes include competency training on work skills, WSH skills and language skills, monthly training sessions to build up health and safety capabilities and sharing of incident lessons learnt. PCS also partners the Petrochemical Complex Contractors Association (PCCA) to enhance constructive collaboration, in delivering training and sponsor selected supervisors/foremen for external WSH training and seminars.



The five proud bizSAFE Mentors

From its infancy, where PCS made it a requirement for contractors working in the company to have at least bizSAFE Level 3 certification, many of these contractors have since climbed up the ladder to achieve Level 5 (or Star) and a few have been recognised as bizSAFE Partners.

# Petrochemical Customer Seminar 2018



**Jessica Tan**  
T&O

Petrochemical Customer Seminar 2018 is organized by chemical vendor, Nalco Champion by Ecolab, for the second year running. It was held on 5th – 7th March 2018, in Bangkok, Thailand. The seminar aims to gather petrochemical industry professionals for sharing sessions on commonly encountered problems in ethylene and butadiene processes, as

well as provide an overview of Nalco's technology to aid in extension of runlength.

The highlights of the conference included firstly, a presentation by an invited guest speaker, Robert Haines, from CB&I, in which he gave an overview on the outlook of the feedstock, olefins and butadiene markets. He also introduced newer technology

solutions such as Reverse Olefins Conversion Technology (OCT) in which ethylene and butene can be produced from propylene and C5 OCT in which ethylene and pentene can produce propylene, for the changing market.

Secondly, some key challenges and best practice guidelines were presented for both the ethylene and butadiene plants by several Nalco subject experts. This included a sharing based on the benchmarking of their existing customers on various areas such as fouling regions, type of chemical treatments and plant runlength. Nalco also shared on some new innovation products which could be occupationally safer and more environmentally friendly.

Lastly, there was a short and informal session between company delegates for mingling and information sharing on different operational experiences and issues in the respective plants.

Overall, it was an informative session by the experienced speakers, and provided a good platform for interaction between companies in the region.



# 1<sup>st</sup> MASS TOOL BOX MEETING 2018

## - MESSAGE FROM GM (PLANT)



Lim Kian Huat  
MAI

### Process Safety

Process safety incidents are of low frequency but serious consequence. Very often, the cause of process safety incident is basic and fundamental. PCS has been emphasizing process safety, with comprehensive process safety management system and measures in place. We have been monitoring process safety key performance indicators (KPIs) to ensure that our performance is sustainable.



PCS GMP Er Lucas Ng addressing the 550 participants on 3 Jan.

“A year’s plan starts with spring; a day’s plan starts with early morning”

General Manager (Plant) Er Lucas Ng shared a popular Chinese proverb “一年之计在于春，一日之计在于晨 (Yī nián zhī jì zài yú chūn, yī rì zhī jì zài yú chén)” - A year’s plan starts with spring; a day’s plan starts with early morning” to reiterate the importance of planning towards another challenging year ahead.

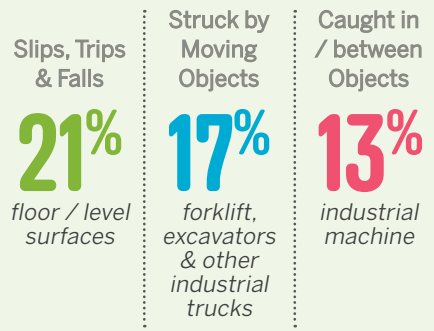
In his review for 2017, he thanked the Contractors for their contributions and partnership with PCS in supporting our plant operations as we look forward to the next target, 40 million hours worked without Lost Time Incident (LTI). Together we had crossed a combined PCS Employees and Contractors 5,000 days worked without a LTI on 18 November 2017. This achievement is equivalent to 13.6 years LTI free.

However, he reminded us not to be complacent with our good performance but have a sense of vulnerability. The in-house ongoing HSE activities such as Behaviour Based Safety Observation (BBSO), Stop and Report (STAR), and Speak Out for Safety (SOS) are key pillars amongst other initiatives to our success.

As workers and foremen/supervisors, he urged them to deliver good quality works – either mechanical, electrical & instrument, painting, insulation or even project works, contributing to facilities reliability and thus ensuring process safety via various ways. Besides, he encouraged all being watchful when working in the plants while looking out for abnormal signs such as leaks, smell, abnormal noise, abnormal temperature, etc. We have to be watchful not to damage key plant facilities such as pressure/temperature gauges, instrument tubing, equipment in analyser house, small tubing and piping around rotating machinery.

### Occupational Safety

Referring to Workplace Safety and Health (WSH) report 2012-2016 for Chemical Industries, he shared the top 3 incident types which accounted for 51% of non-fatal injuries:



Referring to WSH Bulletins for period of October ~ December 2017, he highlighted 8 fatal incidents for lessons shared and learnt.

- Lorry driver killed in traffic accident on 5 August 2017
- Worker trapped in a cable drum atop a crane on 20 September 2017
- Worker electrocuted during electrical works on 24 September 2017
- Cleaner ran over by a truck on 19 Oct 2017
- Worker fatally injured after struck by falling object on 1 November 2017
- Two workers killed in accident involving lorry crane and van on 3 November 2017
- Worker fatally injured after falling from height on 11 November 2017
- Lorry driver fell off lorry bed on 11 December 2017

8

He reiterated the importance to practice and perform in-situ Risk Assessment (iRA) to prevent such tragic incidents.

### VISION ZERO JURONG ISLAND GROUP

WSH Council would like to drive “Vision Zero” in Jurong Island through WSH Council’s Chemical Industries Committee, by forming a “Vision Zero Jurong Island Group” in 2018, supported by Jurong Island companies in various sectors, trade associations, trade union and the government. He noted that this is a good movement to target zero incident in Jurong Island as process safety incidents involve releases and ignition sources. In closing, he urged us to give our full support to this new initiative by exchanging and sharing our good practices and experiences, to drive and champion “Vision Zero” movement in Jurong Island so that together we can preserve our cultivated WSH culture, and continue our every effort working towards both occupational safety and process safety excellence!

### Chinese New Year Gathering 2018

To welcome the auspicious year of the Dog, PCS Contractors HSE Committee (PCC) and Maintenance held a combined Lunch Gathering on 12 February 2018 at the PCC Rest Shelter.

About 750 PCS Employees and Contractors got together to toss raw fish salad and enjoyed the New Year delicacies & catered bento set lunch. They also wished one another a Blessed, Safe, Healthy and “Pawperous” Lunar New Year ahead.



Pre Chinese New Year Gathering on 12 Feb 2018.

# Naphtha Import Facilities Official Opening Ceremony



Ngai Jia Ming  
T&O



Unveiling of NIF official opening plaque.



Mr Akira Yonemura  
delivering his speech.



Mr Tsutomu Terashima  
delivering his speech.



Officiating the opening of NIF.

A warm and sunny Wednesday morning on sandy grounds by the seaside sounds like the perfect tropical getaway for many of us. This was precisely the landscape PCS treated our visitors to on the 14 March 2018, as we celebrated the opening of the new US\$80 million Naphtha Import Facilities (NIF) with our Guest-of-Honour Mr Lim Kok Kiang, Assistant Managing Director, Economic Development Board. Interestingly, this was also the ground where the Engineering, Procurement and Construction (EPC) contractor built their site office during the construction of NIF, at the far end of the eastern side of Ayer Merbau. Just beside the event tent, stood in clear view, the (eight) new Naphtha Tanks and a vessel docked at the new 120,000 deadweight tonnage (DWT) Berth 6, double the size of what PCS previously handled.

gives us more opportunities for feedstock optimization and hence further strengthens our competitiveness”.

JGC Singapore (JGCSP) Managing Director, Mr Tsutomu Terashima echoed this sentiment by reminiscing the long relationship between JGCSP since PCS-I project completion in 1984, followed by PCS-II project completion in 1997. Mr Terashima also took the time to mention their joint-venture partner, HSL Constructor and all ten of their sub-contractor companies.

The third speech was given by our Guest-of-Honour Mr Lim Kok Kiang who congratulated PCS on the successful completion of NIF. Mr Lim highlighted that Jurong Island has \$50 billion of combined investment generating 28,000 jobs and added that NIF “will enhance the resilience of our Energy & Chemicals industry, and improve the overall competitiveness of the sector”.

Next, as Mr Yonemura and Mr Lim stood on each side of the plaque, event emcee, Mr Kew Jia Ming, counted to 3. And with a BANG! confetti filled the stage as Mr Yonemura and Mr Lim unveiled the plaque together.

NIF came a long way since the ground breaking on 22 March 2016. After a whopping 2.1 million hours worked without lost-time injury (LTI), the project was completed and commissioned on 10 November 2017 with the first vessel berthing in Berth 6 on 11 November 2017.

A video detailing the timeline of NIF from contract signing to commissioning and berthing of the first vessel was shown on the large screen and ended with a round of applause from the audience. The event was concluded as the guests enjoyed their lunch while looking at a 360° panoramic view of Ayer Merbau with the newly constructed NIF.

The opening ceremony started with a speech by PCS Managing Director, Mr Akira Yonemura, who thanked all parties for the safe and successful completion of the project. To highlight the importance of NIF to PCS’ competitiveness, he said, “Our new naphtha import facilities



M Lim Kok Kiang  
delivering his speech.



The captivated audience.



Networking over lunch.

# PCS Bags Two Energy Efficiency Awards During EENP Awards 2017



Francis Tan  
T&O



Er Ng Chee Wai receiving Honourable Mention Award in the Best Practices Category from GOH, Mr Masagos Zulkifli, Minister MEWR.



Er Lucas Ng receiving Excellence in Energy Management Award from GOH, Mr Masagos Zulkifli, Minister MEWR.



Winners of EENP Awards - 2017.



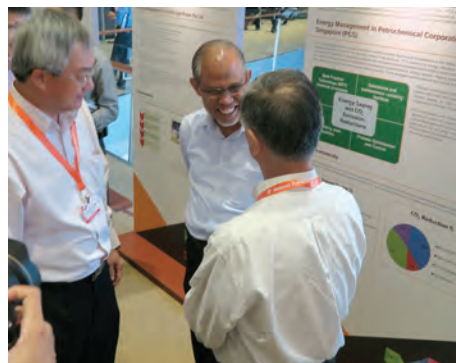
PCS Participants in NEEC 2017.



PCS Team with GOH Mr Masagos Zulkifli, Minister MEWR.

PCS has been proactive in energy-conservation efforts since the beginning of its operations in the 1980s. Being a pioneer in the petrochemical industry in Singapore and the region, and faced with high energy cost since its beginning, PCS has been consistently striving its best to stay competitive by improving all aspects of its operations. These include safe, stable and reliable operations through excellent occupational safety as well as process safety performance.

PCS bagged two Energy Efficiency National Partnership (EENP) awards - **Excellence in Energy Management category** and



Er Lucas Ng & MD Mr. A Yonemura explaining PCS activities to GOH Mr. Masagos Zulkifli, Minister MEWR.

**Honourable Mention Award in the Best Practices category** awarded by NEA during the annual EENP Awards 2017 ceremony held during the National Energy Efficiency Conference 2017 from 5 to 6 October 2017. The Guest-of-Honor was Mr Masagos Zulkifli Bin Masagos Mohamad, Minister for the Environment and Water Resources (MEWR).

The first award Excellence in Energy Management recognises PCS's efforts and approach to continuously improve its energy efficiency and maintain "Best-in-Class" status. The second Honourable Mention Award in Best Practices recognises PCS members' teamwork in energy conservation efforts to improve furnace thermal efficiency as well as to achieve best possible yield for same energy.

Following the Awards ceremony, PCS was given the honor to share about PCS's Energy Conservation efforts. As a key note speaker in the opening plenary session, General Manager (Plant) Er Lucas Ng shared PCS's experience to improving Energy Efficiency (EE). The title of the presentation was "Why Place Energy Efficiency at the Forefront of Corporate Strategy". Er Lucas Ng stressed that Companies should continue to adopt

best practices and new technologies to drive EE improvement. There are also challenges ahead as new plants are designed with higher energy efficiency in mind while retrofitting of older plants is uneconomical or impractical. The next obvious step is then to continue to explore and implement projects such as process optimisation (demand side) to complement with utility optimizer (supply side) to enhance and sustain energy efficiency performance.

Technology & Optimisation Manager, Er Ng Chee Wai elaborated on PCS' furnace energy efficiency improvement project that led to significant improvements Er Ng CW highlighted that keys to sustain EE are careful process design, proactive maintenance and regular performance monitoring of equipment such as fired process cracking furnaces which are significant energy consumers. Er Ng CW shared how PCS had evaluated that it is more practical to retrofit existing furnaces than total furnace replacement and provision of additional access windows for Dry-Ice Blasting of the convection section to maximise and sustain heat recovery. The path forward is to continue to explore and evaluate other cleaning methods including other innovative ideas to improve EE.

During the conference, other speakers shared their EE journeys in other sectors such as food, laboratory, electronics and pharmaceutical which included possible adoption of Artificial Intelligence (AI) for EE and smart energy management through digitisation. The economics of the adoption of Solar Photo Voltaic (PV) and Singapore's journey including overcoming industrial challenges were also covered.

This annual conference has allowed especially the major energy consuming industries to come together to foster a culture promoting and sustaining EE improvement by taking a holistic approach rather than at individual components.



PCS MD and GM(Pl) together with PCS participants.

# Make your Pledge for Climate Action - 2018

Collectively, everyone has a crucial role to play to fight climate change by going green. Singapore is also very vulnerable to the effects of climate change. Some of the effects are weather swings such a rise in temperature or prolonged dry weather.

Minister for Environment and Water Resources, Mr Masagos Zulkifli launched Singapore's Year of Climate Action – 2018, a year-long national initiative aimed at raising awareness on climate change on 26 January 2018.

Individually, we can pledge to reduce our carbon footprint by switching off our computers instead of leaving it on stand-by overnight. Organization can pledge to procure only energy efficient equipment while educational institution can pledge to cut back on use of paper.

Let's play our part by making our pledge through the following links.



**As Individual**  
<https://www.mewr.gov.sg/individual-pledge>

**As Educational Institution**  
<https://www.mewr.gov.sg/educational-institution-pledge>

**As Organization**  
<https://www.mewr.gov.sg/organisation-pledge>

For more information, please refer to NEA website

## JG SUMMIT PETROCHEMICAL CORPORATION VISIT TO PCS QC FUNCTION



Tok Ai Tee  
QC



Group photo with our JGSPC visitors

It was announced in 2016 that JG Summit Petrochemicals Group, the sole cracker operator in the Philippines, would invest US\$700 million for the expansion of the naphtha cracker plant, polypropylene plant as well as building of a brand-new polyethylene factory, aromatics and butadiene plants. It will be using the process technologies of Lummus/BASF for butadiene (BD) extraction and of GTC Technology for benzene-toluene-xylene (BTX) extraction. The projects are aimed to be completed by 2021. With these expansions, the company is expected to produce around 160,000-170,000 tonnes of combined BTX, and 80,000-90,000 tonnes of BD.

To support these new plant expansions, JG Summit Petrochemical Corporation (JGSPC) QA/QC planned to build a new two-storey laboratory with improved facilities and laboratory equipment. As they have no prior experience in handling samples from BD and Aromatic Plants, they approached PCS for a laboratory site visit to understand the design considerations and operation requirements they should factor in for their new laboratory. PCS readily accepted the request as it is a rare opportunity to showcase our QC good practices to another Regional Olefins Producers Technical Committee (ROPTC) company, and also learn of the regional requirements for laboratory set up.

The ½ day visit took place on 2<sup>nd</sup> Feb with three laboratory representatives from JGSPC.

**Ms. Remilie Anne Ruis**

*QA/QC Laboratory Manager*

**Ms. Nene Comia**

*QA/QC Laboratory Superintendent*

**Ms. Leonila Perez**

*Senior Chemist*



JGSPC Team touring the QC laboratory

JGSPC team was warmly received by GM (Plant) and PCS QC team. Mr Bernard Leong (QC Manager) started with a brief introduction of PCS, followed by QC team presentation on QC Laboratory operations. Several topics were shared during the session, ranging from laboratory layout, workflow, safety requirements, waste management, equipment requirements and test methods etc.

The team also spent some time in touring the QC building, covering the three laboratories, including the QC cylinder yard and chemical storage room. I recalled as we walked along the QC corridor, their QA/QC Laboratory Manager commented "I like these very much". She was pointing to the safety messages that were pasted on the corridor wall. These safety messages are the contributions from all QC members who routinely take turns to share a safety message or an experience. This sharing activity is one of the QC's initiatives for instilling HSE awareness within the Function, and the messages were displayed to remind us of what were shared for the year. I was pleasantly surprised, and in fact beaming with pride that our works actually caught the attention of our visitors without us even emphasising it.

Throughout the 4-hour session, we addressed many of their queries and shared many of their concerns as well. The discussion was fruitful with many follow-up thoughts for both parties.

# Visit by SSRD-MINDEF

Senior officers from the Safety and Systems Review Directorate (SSRD) visited PCS on 1 February 2018. SSRD was keen to understand how PCS has been able to maintain a good safety record, its safety initiatives and programmes, and challenges faced.

In 2013, Ministry of Defence (MINDEF) formed SSRD to oversee the conduct of safety and systems reviews for MINDEF and the Singapore Armed Forces (SAF). One of the main roles of SSRD is to conduct system reviews for MINDEF and the SAF, with the primary focus being on the SAF's safety management system.

The visit was first mooted by the then Chairman of the Workplace Safety and



Bernard Leong  
HSE



Health Council, Mr Heng Chiang Gnee, for MINDEF to explore how commercial organisations manage health and safety. PCS, being one of the companies with a good health and safety record, and being a "major hazard installations", was high on the list.

The exchange was mutually beneficial, with PCS better appreciating how its

programmes and practices can be applied to a non-manufacturing environment, especially in a well regimented organisation.

The takeaways from this "study mission" have since cascaded down through the military, with the Republic of Singapore Navy approaching PCS for a similar engagement.

# Dorf Ketal India Plant Visit



S K Sarkar  
T&O

Chemical (India) Private Limited, Mumbai briefed their roles and responsibilities for ensuring quality and delivery of chemicals on time across the globe, while maintaining very high HSE and security standards for safe & reliable plant operations.

This was followed by a presentation by GM (Plant), Er. Lucas Ng HK, on a topic aptly titled "Quest for beyond Process Safety Excellence through Responsible Care®" covering various areas ranging from HSE and security history and achievement at PCS, Responsible Care® journey, sharing, driving process safety through RC and partnership with contractors.

The delegation team of PCS was hosted to a site visit by Dorf Ketal-Mundra members including their manufacturing facility, QC laboratory and warehouse facility. PCS provided feedbacks based on Responsible Care® observations during the site visit for their consideration for continuous improvement.

Feature of the visit was the presentation on the extensive Corporate Social Responsibility (CSR) activities initiated by Dorf Ketal for the local community. Their CSR focuses on local issues such as eradicating hunger, promoting education, promoting gender equality, ensuring environmental sustainability and rural development projects etc. Their intent on environment was glaringly demonstrated through tree plantation activity considering Mundra plant being in one of the most arid part of India.

This visit brought PCS and Dorf Ketal one step closer in promoting Responsible Care®.



Dorf Ketal Plant visit on 6 Feb

A delegation from PCS visited Dorf Ketal Plant at Munda, Bhuj, Gujarat in India on Feb 6, 2018.

Responsible Care® is the global chemical industry's initiative that drives continuous improvement in Health, Safety and Environmental (HSE) performance. The close collaboration with Technology Partners, suppliers and users through Responsible Care® has been the success story of PCS in upholding to its guiding principles and implementing relevant codes of practice.

Dorf Ketal has been the Technology Solution Process Chemicals Provider for PCS since 2005, partnering various improvement strategies for operations reliability. The objective of accepting the invitation from Dorf Ketal Speciality Chemicals Private Limited plant visit to India was to profile Singapore's Petrochemical industry and



GM(P) sharing PCS RC journey

support Dorf Ketal in upholding its principles of safety and reliability through Responsible Care®. This was also part of PCS Responsible Care® outreach programmes for long term sustainability in operations reliability.

The Mundra plant (West part of India) site visit kicked off on 6 Feb 2018 at 10:00 am with a warm reception by the plant management and followed by safety & security briefing at its Security Office.

During the plant information exchange session, functional heads from Dorf Ketal



# NUS STUDENTS INDUSTRIAL VISIT AND INTERACTION SHARING SESSION IN PCS



Calvin Neo  
T&O



PCS warmly welcomed NUS Chemical Engineering Students Society (ChESS) in their recent industrial visit to PCS on 1 March 2018. Members from HRA and T&O had prepared an interactive sharing session and bus tour during their industrial visit. This industrial visit provided opportunities for the students to learn more about working in the petrochemical industry such as PCS through interactions with the members from HRA and T&O.

The session started off with light refreshments for the students in the reception area of PCS Administration Building, where the new scale model of Singapore Petrochemical Complex was showcased.

In order to introduce PCS key roles as an upstream petrochemical company, the students were invited to watch the PCS

corporate video and followed by an overview presentation of PCS manufacturing processes by Mr Calvin Neo, T&O engineer. This presentation broadened the students' knowledge in petrochemical supply chain from primary naphtha feedstock to high value petrochemical products through PCS well-integrated manufacturing processes.

After the overview presentations, Ms Jessica Tan, T&O engineer, continued to share her insights on the job scope and challenges of a chemical engineer with the students. The interactive sharing session was met with enthusiasm by the students. One enquiry in particular, "What are the key things learned in university that are important to a chemical engineer in PCS?" Mr Francis Tan and T&O Engineers further emphasized the importance of passion, interest and fundamentals in chemical engineering to be a good chemical engineer.

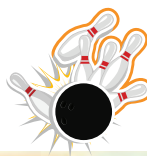
During the Question and Answer session on matters related to career in PCS, Mr Loh

from HRA had shared with the students on PCS attractive benefits and work-life balance. He further summarised the 3 "P"s – Plant, People, Pay, which differentiate PCS from other companies. The 3 "P"s emphasized on the safety & reliability of the plant, high quality and valued employee as well as competitive market pay.

The Industrial Visit then ended off with a bus tour around the Singapore Petrochemical Complex with Mr Francis Tan and T&O engineers as bus guides to introduce the manufacturing plants in the complex.

Recalling back, it was an enjoyable session to be able to share my personal experience with the students who are genuinely interested and keen to join the family of Chemical Engineers. Personally, I have gained from this session about the journey of PCS evolving from the past to present in order to remain competitive in this industry.

# PCS Bowling Tournament 2018 - MD's Challenge Trophy



Cerine Lim - HRA



Group Photo - Bowling Tournament 2018

On 10 Feb 2018, we were back to SuperBowl Mount Faber for our annual Bowling Tournament! A total of 46 bowlers participated in this year's MD's Challenge Trophy, vying for the Team and Individual medals. Many of our colleagues who are veterans at the game came well geared up and in good spirits, ready to win.

There was a good mix of both new and experienced bowlers, all looking forward to score a strike during the four rounds of intense yet friendly games. The team from Olefin-I emerged Champions with the highest combined score, securing the MD's Challenge Trophy, though the Fire & Security

team put up a credible fight. For the second year running, we were very happy to have the PCC/PCCA team joining us for the Invitation Challenge Trophy. Team PCS managed to clinch the Invitation Challenge Trophy, and the top individual prize went to Alex Aw from Fire & Security. Congratulations to all winners!

We ended off the event with a simple nice lunch, an enjoyable bonding experience and a great workout! Last but not least, the SSRCC committee certainly hope to see all of you at the other planned events this year. Till then!



## Tournament Results

### Team:

- Champion – Olefin I
- 1<sup>st</sup> Runner Up – F & S
- 2<sup>nd</sup> Runner Up – Olefin II

### Invitation Challenge Trophy:

Winner – Team PCS

### Top 10 Bowlers:

- 1<sup>st</sup> – Alex Aw
- 2<sup>nd</sup> – Andy Liew
- 3<sup>rd</sup> – Joshua Wong
- 4<sup>th</sup> – William King
- 5<sup>th</sup> – Jack Ho
- 6<sup>th</sup> – Ishak Bin Ismail
- 7<sup>th</sup> – Tiah Nam Kuan
- 8<sup>th</sup> – Albert Ang
- 9<sup>th</sup> – Venuanathan Machap
- 10<sup>th</sup> – Hairil Ashraf



Top Individual  
Alex Aw (F&S)



High Game  
Joshua Wong (Ole-I)

# Nature Walk 2018 - The Urban Edition



Ismail bin Jaafar  
Ole-I



Reflections at Bukit Chandu.

The weather was surprisingly pleasant and cool in the morning with a constant breeze. Sunlight, gentle and scattered, filled the greyish sky. Its hue ambitiously illuminating each crevice of the ground. With breath paused, one wished time would stand still. It didn't, but the emotions that flowed subconsciously stilled one's soul. Who would have thought that the quintessential landscape of elegance belies a hidden and violent history. Kent Ridge Park is a peaceful spot, rarely crowded and quiet to the extent of almost being introspective. It is easy to forget that it was once the scene of fierce fighting during the final days of the Battle of Singapore. It is deliberately preserved as a nature spot in homage to the events that took place on the ridge.

On Saturday of 24<sup>th</sup> March 2018, SSRCC ushered a group of 34 delightful individuals (staff and families gathered), retracing the Kent Ridge war path taken by the retreating Allied troops and the advancing Japanese Imperial Army, culminating at the peak of Bukit Chandu. The morning started with a small cheer when a lunch menu from Délifrance was passed around for participants to tick their pick. At Kent Ridge MRT station's exit, more cheers followed.

Familiar smiles and warm greetings galvanizing the distribution of starter packs to everyone present.

We began the walk with a gradient climb along Kent Ridge Road to explore an abandoned British military observation post, hidden within a forested slope. It has been preserved, untouched by the hands of man but not nature, as a grim reminder of war. Built in 1936 and code-named Point 270, it was captured by the highly-motivated 18<sup>th</sup> Division of the Japanese Imperial Army on 13<sup>th</sup> of February 1942 at 1600 hours. Broken paths, sporadic decay and almost consumed by the surrounding vegetation, the bare rooms and solemn pillars, in some small measure, left a little dent in everyone's heart and mind that lives were taken away on the very spot they were standing. And where they stood, red ants raised an outcry.

14<sup>th</sup> of February has always been anticipated with benevolent affection, rightly or wrongly, by modern, pop-culture Singapore. Quite an indication of how far we have gone in embracing the new world and how much we have been influenced by the practices

of cultures previously alien to us. And while most of us celebrate with a commercialised expression of love, many are unaware of the significance of the date in Singapore's history – a date which 76 years ago in 1942, witnessed a very different and perhaps a lot more genuine expression of love by a group of valiant men who made the ultimate sacrifice in the defence of freedom.

With that in mind, we arrived at our next stop, Bukit Chandu. It was the strategic position where "Charlie" company of the 1<sup>st</sup> Malay Regiment took their last stand against their battle-hardened adversaries. After a couple of failed breaches, the Japanese Forces finally overwhelmed their opponents by charging at them with numbers, knowing that victory was imminent. The remaining members of the 1st Malay Regiment fought to the very end as they engaged in hand-to-hand combat after all their bullets and supplies ran out, before succumbing to the piercing bayonets of their Asian foes. Atop the hill today, surrounded by lush greenery and a reflecting pool, an elegant bungalow (built especially for senior British officers during the colonial era), has been transformed into a museum. "Reflections at Bukit Chandu" chronicles the



Beautiful scenery.

Japanese invasion of Malaya and Singapore, the role of the 1st Malay Regiment in defending the nation and a snapshot of "Charlie" company's Lt Adnan Saidi's life. The interpretative centre's exhibits do not glorify war nor are they gruesome. Instead, it serves to remind visitors of the price of peace and the sacrifice of patriots.

It was almost noon as we breezed through the HortPark. A luffa plant drew everyone's attention momentarily but an overwhelming moment of hunger drew everyone to hurry lunch. The day ended with yet another round of cheers as everyone tucked away their lunch in a cool, sanctuaried comfort from the scorching sun outdoor.

It may have been a short walk, slightly more than 7 km. It may have brought a much-needed exercise for some. But one little thing that a handful might have missed was the inscription on a brass plaque, almost obscure at Bukit Chandu. A quote from George Yeo in 1997, then Minister for Information and the Arts. It reads, "If we do not remember our heroes, we will produce no heroes. If we do not record their sacrifices, their sacrifices would have been in vain... the greatest strength we have as a people is our common memories of the past and our common hopes for the future...for without those memories, the next generation will not have the fighting spirit to carry on."



British military observation post



Group photo at the start point.

# Employee News

## LONG SERVICE

Presentations on 11 & 15 January 2018



### 5 Years

Tan Wei Cheng Bobby Olefin-I  
Mohamed Yusri bin Mohamed Nassir Olefin-I

### 10 Years

Irene Ng Account & Finance

### 15 Years

Lim Yeong Hann Olefin-II  
Ng Kwang Hiang Olefin-II

### 20 Years

Tan Peck Luan Technology & Optimization  
Pauline Lim Account & Finance

### 25 Years

Lee Wai Chyn Technology & Optimization

### 30 Years

Ng Sock Huang Maintenance  
Sally Ong Olefin-II  
Fong Kim Siew Olefin-II  
Nordin bin Sarip Olefin-II  
Jeanine Ng HR & Admin

### 35 Years

Dominic Chee Technology & Optimization  
Tio Gian Leng Technology & Optimization  
Veronica Wong Technology & Optimization  
Abdul Hadi bin Alias Olefin-I  
Ang Keng Huat Olefin-I  
Chng Chee Hwee Olefin-I  
Jack Ho Olefin-I  
Ku Yui Siang Olefin-I  
Mohammad Anuar bin Salleh Olefin-I  
Ng Mong Hen Olefin-I  
Ngai Khai Yoon Olefin-I  
Ong Chong Khoon Olefin-I  
Quek Ser Meng Olefin-I  
Tan Chee Wee Olefin-I  
Tan Kim Hua Olefin-I  
Wee Chin Thuan Olefin-I  
William Wong Olefin-I  
Woon Hwee Seng Olefin-I  
Yew Diong Kwong Olefin-I  
Zainal bin Bunawi Olefin-I  
Abdul Aziz bin Amin Olefin-II  
Gan Meng Hua Olefin-II  
Ho Wai Khoon Olefin-II  
Lur Hwee Chow Olefin-II  
Mohamed Ikbar s/o M.P. Olefin-II  
Nagappan Garunaharan Olefin-II  
Zainal Abidian HJ Ahmad Olefin-II  
Cheok Fook Hoong Maintenance  
Lim Kian Huat Maintenance  
Low Kok Tong Maintenance  
Loy Tiew Kwee Maintenance  
Mohd Radzali bin Mohd Shah Maintenance  
Ng Teck Bee Maintenance  
Too Eng Soon Maintenance  
Wong Wai Tong Maintenance  
Ahmarapala John Health, Safety & Environment  
Ng Chong Seng Quality Control

## NEW EMPLOYEES



**Mr Tey Tai Keat**  
Officer, Business Development & Planning  
Joined 5 March 2018  
Hobbies: Music, Running



**Ms Koh Ker Suan Vanessa**  
Admin Assistant, Purchasing  
Joined 5 March 2018  
Hobbies: Kayak, Baking



From left : Pauline Lim, Foo Siang Tien (GMC) & Jeanine Ng



From left front row : Ku Yui Siang , Woon Hwee Seng, Ho Wai Khoon, Dominic Chee, Tio Gian Leng & Tan Chee Wee.

Back row : Mohammad Anuar bin Salleh , Lur Hwee Chow, Zainal bin Bunawi , Ong Chong Khoon, Ngai Khai Yoon, Veronica Wong, Lucas Ng (GMP), Lee Wai Chyn, Tan Peck Luan, Wee Chin Thuan, Ang Keng Huat & Jack Ho.



From left front row : Ng Mong Hen, A John, Nagappan Garunaharan, Marcus Chia, Ng Teck Bee, Mohamed Yusri, Ng Chong Seng, Wong Wai Tong, Cheok Fook Hoong, Zainal Abidian & Lim Yeong Hann.

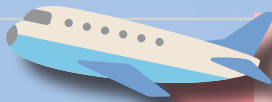
Back row : Yew Diong Kwong, Lim Kian Huat, Too Eng Soon, Quek Ser Meng, Tan Kim Hua, Gan Meng Hua, Lucas Ng (GMP), Sally Ong, Mohamed Ikbar, William Wong, Mohd Radzali, Loy Tiew Kwee & Low Kok Tong.

## SSRCC Members 2018



From left : Loh Sing Keong (HRA), Hari Rueban (Ole-II), Amzah b Abdul Rahim (F&S), Kelvin Teo (Ole-II), Cerine Lim (HRA), Lilian Tang (HSE), Tan Thian Chye (Chairman), Mak Kuok Hwa (MAI), Foo Siang Tien (GMC), Ngai Jia Ming (T&O), Lionel Cai (ENG), Anas b Ibrahim (Ole-I), Vincent Woo (HRA), Gerard Chen (Ole-I), Chng Wei Lang (QC) & Lincoln Lee (HRA) [not in picture].

# WEEKEND GETAWAY



After a 4 hours' flight, the plane landed at Tao Yuan International airport, Taipei at 6am.



Pauline Lim  
ANF

Having settled the hotel accommodation, our first stop was to visit Yilan County. It is a county located in the northeastern part of Taiwan, famous for its beautiful scenery and Children's Folklores Festival held during the summer.



## 1 Day Fo Guang Shan Lanyang temple in Yilan

My sister and I visited the Fo Guang Shan Lanyang temple in Yilan. There is great sentiment for this temple because Humanistic Buddhism which was founded by Venerable Master Hsing Yun in 1953 originated from here. The master Hsing Yun Diamond Jubilee Museum has been established by Lan Yan temple in order to commemorate the 60 years anniversary of Venerable Master Hsing Yun's propagation of Dharma in Yilan. Inside the museum, we saw many displays of venerable master's life events such as his renunciation, arrival in Taiwan to spread Buddhism and propagation of Dharma through collective spiritual practices



## 2 Day Shilin Night Market

The sun was setting and we decided to move on to our next stop which was the Shilin night market. It is well known and often considered to be the largest and most famous night market in the city. When we reached there, the aroma of the food from all the food stalls reaches our noses even before the food reaches the mouth. And we could literally taste it. It was mouth-watering! The streets were fully packed with food vendors and small restaurants in one section; and the other section was made up of businesses and shops selling other non-food items. The night market was noisy, crowded and buzzing with activities where the neon signs, loud music and light displays were used to attract customers. The atmosphere there was great.



## 4 Day Keelung Fo Guang Shan Ji-Le Temple

On the fourth day, which was our last day in Taipei, we wanted to visit the last temple before we head back to Singapore. We took a bus from Taipei main bus station to Keelung Fo Guang Shan Ji-Le temple in the early morning.

My sister and I hope to visit more Fo Guang Shan temples in the future. Currently there are more than 200 branch temples that span across all the five continents. I like the architecture structures used to build all the different temples and the vast amount of knowledge that is kept inside the museums. This short weekend getaway was a great experience for both of us because we enjoyed and tasted a wide variety of vegetarian food. From my personal experience I found that Yilan is quite a laid-back place as compared to Taipei.

It is an ideal place for someone who wants to seek solitude and self-reflection of oneself.



## 2 Day Lanyang Museum, Toucheng Township of Yilan County

The next day we went to Lanyang Museum which is located in Toucheng Township of Yilan County. We heard many good reviews about this place and wanted to see it for ourselves. The museum is huge and it took us 2/3 of the day just to tour the place. We were very impressed with the modern architecture of the museum which used local rock formations. It is definitely beautifully designed, both facade and floor plans well laid out. The exhibition covered many aspects of Taiwan, from both national and natural history to geography. The museum starts with local nature and progresses through ancient aboriginal lifestyles to villages to modern day. It gave an insight of the lives that the Taiwanese people had gone through. Both of us were mesmerized and felt fully immersed in their culture and history when we were in the museum.



## 3 Day Elephant Mountain, Xinyi District

On the 3<sup>rd</sup> day, we got up very early and headed for the Elephant Mountain located in Xinyi district, Taipei. We reached there at 8am in the morning for our morning exercise. The morning cool air was refreshing and we both felt totally rejuvenated after we completed the long hiking trail.

Elephant Mountain (象山) is the most famous of the "Four Beasts Mountains (四獸山)" of Taipei, Taiwan and the most easily accessible. Being the closest to the city not only means easy access, but it means stunning views of Taipei, especially Taipei 101. Elephant mountain is in the heart of Taipei, just a few hundred meters from Taipei 101. Paved paths and steps provide easy access from the city.

The 183m (600 ft) mountain is part of a range that stretches about 10km (6 miles) and reaches heights of 375m (1200 ft). The mountains are thickly forested, providing protection from sun and rain. Numerous small temples and shelters provide frequent opportunities to rest, enjoy a drink & snack, and learn more about the local culture. It also a popular place for the locals to exercise and tourists to hike.

After the hike, we went to visit two more temples, the Fo Guang Shan Taipei Vihara and Fo Guang Shan Jin Guang Ming Si.

