

SCOPE

4th Quarter 2021
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2021 PERFORMANCE REVIEW AND MANAGEMENT DIRECTIONS FOR 2022

REVIEW OF 2021

2021 has been another challenging year for all of us at PCS under the long-drawn COVID-19 pandemic. Despite facing many new challenges brought about by this pandemic, PCS performed well overall, financially and operationally, while completing our SDM 2021 safely and successfully. I take this opportunity to thank all of you for your resilience, dedication and contribution.



Mr Hisashi Shibayama,
Managing Director

Our financial performance for 2021 is expected to be better than budgeted due mainly to product prices reaching a high in 1H2021 as a result of the US winter storm with massive production disruptions in the US. Ethylene and Propylene margins were better than budgeted in 1H 2021 on the back of tight supply, particularly in the US, coupled with strong demand from derivatives for packaging and hygiene products due to COVID-19. By-products prices also rose in tandem during the US winter production disruptions, with Butadiene and Benzene continuing to stay firm even when operations normalised, amidst recovery of economies from COVID-19. However, product prices weakened from September 2021 as fundamentals took centre-stage with focus turning to the huge product capacity additions. Butadiene was the worst hit product, having tumbled to below naphtha price, due to almost non-existent Asia-US arbitrage and big drop in gloves demand amidst over built inventories. In addition, crude and naphtha price rallied to a three-year high in October 2021, recovering to more than pre-pandemic levels and putting intense pressure on our margins.

We have worked together to improve product margins and plant efficiency through optimising plant operations and commercial strategies via cross-functional collaboration such as continuation of the Commercial Plant Optimization work group. We have also executed SDM 2021 for PCS-II plants and 3SB plant safely and successfully under COVID-19 pandemic situation with Safe Management Measures (SMM). Operating within SMM is stressful and extremely difficult for our employees, vendors and contractors. However, with perseverance and a single-mindedness attitude in our pursuit towards a successful SDM, our employees were able to achieve a safe shut-down and start-up. On the energy efficiency front, we

continue to strive to improve our energy performance in our operations and as recognition, we have received the Best Practices (Honourable Mention) Award of the Energy Efficiency National Partnership (EENP) Awards for 2021.

Our HSE record remains excellent. To date, the health and safety performance continues to be good, maintaining zero Lost Time Incident ("LTI") and Total Recordable Case Frequency ("TRCF") at 0.3. We have also achieved the historic HSE milestone of 50 million hours worked without LTI for combined PCS employees and contractors on 9 September 2021. This achievement adds on to the three prestigious awards that we were conferred – the 3rd ASEAN-OSHNET (Occupational Safety and Health Network) Excellence Award, the Workplace Safety and Health Performance (Excellence) Award 2021 that culminated from being conferred the Gold Award over the last three consecutive years and the Leadership Award at the SCIC Responsible Care Awards 2021.

PCS, like many other organisations, has had to tackle multiple challenges and worked under many constraints due to the protracted COVID-19 pandemic. Despite so, PCS has done well in achieving both its business and operational objectives. With Singapore relaxing its COVID-19 measures with massive vaccination, the country experienced a big resurgence of COVID-19 cases in the late part of the year. The Company was not spared and despite stringent measures, there were some isolated cases in the workforce and contractors. We are thankful that all the affected employees and contractors have recovered and currently, there are no ongoing transmission in the workplace and operations have been running safely and smoothly. I would like to thank all of you for your operational

resilience and maintaining the sense of urgency/responsibility to the Company while continuously providing sustainable contributions and efforts.

DIRECTIONS FOR 2022

2022 global economic growth is expected to downshift from the 5.7% growth rate in 2021 to a more sustainable rate of about 4.1% as it is expected that pent-up demand would have already been satisfied. Coupled with rising cases of COVID-19 globally in 2021 due to the more infectious COVID-19 "Delta variant" and continued curbs on travel, an easing of global economic growth is increasingly anticipated in 2022 although this may now be thrown into disarray with the emergence of the new COVID-19 "Omicron variant". In addition, given the uncertainties, crude is expected to be volatile going into 2022 as it is much dependent on COVID-19 economic recovery, gas-to-oil switch due to natural gas supply crunch, OPEC+ actions and US-Iran negotiations.

For feedstock, barring any operating load restriction due to squeezed margins, naphtha market in Asia is expected to be strong for 2022, considering additional demand from the full year operation of new naphtha crackers in South Korea with some new supply relief from Kuwait and US Gulf Coast although start-up timings of these new projects and feedstock quality remain to be closely monitored. On products side, Ethylene market is projected to be more challenging on the back of continued significant growth and expansions of integrated petrochemical complexes in China, Korea and Malaysia while Propylene outlook is similarly bearish due to new start-ups, including propane dehydrogenation production in China and Vietnam as well as the impending restart of the petchem plants in Malaysia. Butadiene and Benzene is forecasted to be structurally

long with huge capacities additions in Asia.

Based on the expected weak petrochemical market but however relatively strong crude/naphtha outlook, and the uncertainties revolving post COVID-19 pandemic economic recoveries in 2022 especially after the discovery of the new Omicron variant, the Company is projecting a weaker 2022 financial performance as compared to 2021. In response to the challenging market conditions, we will continue our efforts into 2022 on the key areas of cross functional optimisation of PCS' business and operations, the identification and promotion of projects to enhance our competitiveness such as feedstock robustness, upgrading product value chain, improving energy efficiency and implementing CAPEX projects safely and successfully. Under such weak and volatile business outlook, we need to leverage on our corporate core values of teamwork, professionalism and tapping onto innovation and creativity, in order to achieve the Company's vision of profitability and growth through high reliability in the supply of quality products with competitive cost while upholding a high standard in sustainable HSE performance. As for our plants' facilities, we need to continue with our efforts to improve energy efficiency, reduce variable costs and facilitate gap closure for operations excellence.

In addition, with the recent COP26, more countries have been asked to come forward

For
2022

The key focus areas are:

(i) **Good Health, Safety and Environmental performance**

- Strive to maintain good HSE performance and aim to reach next health and safety milestone of 55 million hours worked without LTI
- Continuing to promote employees' health consciousness especially in times of Covid-19

(ii) **Achieving budgeted profit by**

- Ensuring safe, smooth and stable operation;
- Optimising feedstock purchases;
- Managing out sales portfolio and responding nimbly to changing market conditions and customer's operations; and
- Maintaining cash cost within 1st Quartile of Solomon's unit operating index

(iii) **Successful Implementation of Projects and Studies**

- Implement Capex Projects safely, successfully, on schedule and within budget
- Review and identify areas of Sustainability

with ambitious 2030 emissions reductions targets in order to limit global warming to 1.5 degrees Celsius by this century. Singapore is no exception and has pledged to halve the 2030 peak greenhouse gas emissions by 2050 and to achieve net-zero emissions as soon as viable in the second half of the century. In light of the international and domestic growing focus on sustainability and as a responsible company, the Company will also deep-dive into our current processes as well as explore new green technologies in order to find ways to reduce our carbon emissions. This is not easy as the very nature of our production process require huge amount of energy to transform feedstocks to useful end products and although the Company has invested heavily over the many years to achieve energy efficiency and there has been some initiatives to look into some sustainability projects, we must now muster all our efforts to reduce our carbon footprint and mitigate the high costs of carbon emissions.

While making efforts in the above focus areas, we must, needless to say, continue to conduct our business and operations ethically, professionally and with integrity.

Last but not least, I wish you and your family a joyous holiday season and a safe, happy and healthy 2022.

50 Million Safety Milestone Commemoration cum SDM Appreciation Ceremony



Tan Peck Luan
HSE

PCS and its contractors have jointly achieved a combined 50 million hours worked without a Lost Time Incident on 9 September 2021. For the second time, after the 45 million milestone, we are not able to celebrate such a significant achievement on a large scale basis due to the COVID-19 pandemic. This is also the first time that we are unable to show our appreciation to our SDM contractors for the safe and successful completion of SDM 2021 through a traditional celebratory dinner.

A simple ceremony was instead organised on 2 December 2021 for PCS GM(P) Er Lucas Ng HK to present the 50 million safety milestone commemorative plaques and SDM appreciation plaques and certificates to a total of 37 contractor companies. The event was held in adherence to the prevailing workplace Safe Management Measures. Contractor companies were scheduled to receive the awards at staggered timings, with the wearing of masks and safe distancing between individuals being maintained.



Petrochemical Complex Contractors Association



Sankyu (Singapore) Pte Ltd



Holcam Construction Pte Ltd



PEC Ltd.

50 MILLION HOURS WORKED WITHOUT LOST TIME INCIDENT- PLAQUE PRESENTATION CEREMONY BY SHAREHOLDERS



Bernard Leong
HSE



CS and its contractors have jointly achieved a combined 50 million hours worked without a Lost Time Incident on 9 September 2021. Due to the protracted COVID-19 pandemic situation, it is unfortunate not to be able to have a physical ceremony for PCS shareholders to present commemorative plaques in honour of this achievement.

Nevertheless, a virtual ceremony was held on 7 December 2021, attended by PCS Management and shareholders representatives. The plaques were presented virtually to PCS Managing Director, Mr Hisashi Shibayama, in turn, by:

- **Mr Shinya Goda,**
Sumitomo Chemical Co., Ltd.
- **Mr Abdulrab Mohammed AA Alyafei,**
QPI and Shell Petrochemicals (Singapore) Pte. Ltd.
- **Ms Chen Lin,**
Shell Eastern Petroleum (Pte) Ltd



Sumitomo Chemical Co., Ltd. to PCS



QPI and Shell Petrochemicals (Singapore) Pte. Ltd. to PCS



Shell Eastern Petroleum (Pte) Ltd to PCS

In his speech, Shibayama-san mentioned it is a great honour to receive recognition from our shareholders in this ceremony to commemorate PCS' achievement. This achievement is all the more remarkable, considering the various challenges we have had to deal with, including the unprecedented Shutdown Maintenance in COVID-19 pandemic situation.

He thanked our shareholders, for their support and guidance to our operations, which made our safety achievement possible, and that this recognition will further drive PCS towards a safe and healthy workplace.



STAR Award for Team Olefin in the Team Excellence Assessment



Chong Hon Yeng
IT & Plant Services*

Once again, PCS PEPS workgroup received the STAR Award – the highest accolade, for their participation in the Team Excellence Assessment on 27 Sep 2021.

TEAM EXCELLENCE ASSESSMENT

Tubeskin Thermocouple Installation for Furnace Coil Outlet Temperature Measurement

Olefin Team
Sep 2021

The Team Excellence Assessment, organised by the Singapore Productivity Centre, is a technically professional assessment platform which allows teams from various organisations to present their Team Excellence projects to a panel of judges. Through this assessment, they will be awarded either Star, Gold, Silver, Bronze or Certificate, according to their presentation and project report.

Team Olefin from Olefin-I, led by Maarof Bin Sulaiman, together with team members Chen Yizhang, Razak Bin Kasim, Ho Meng Bing, and supporting engineer Sunny Ho, presented their project 'Tubeskin Thermocouple Installation for Furnace Coil Outlet Temperature (COT) Measurement' at the assessment.

The thermowell[#], for insertion of thermocouple[#] used for furnace COT measurement, is subjected to erosion at the side facing the furnace effluent flow. This could affect the accuracy of the thermocouple reading due to coke formation around the thermowell.

Based on past experience, the furnace is scheduled to shutdown every 8 months to facilitate the replacement of the thermowells. The team proposed to replace existing

insertion-type thermocouple with new tubeskin-type thermocouple for furnace COT measurement – see photo.

The expected improvements from the proposal are:

- Eliminate cost of replacing thermowells every 8 months
- Eliminate additional fuel gas consumption during furnace shutdown and startup for thermowell replacement
- Improve furnace yield with more uniform reading of COT

This proposal was implemented on F-180.

On behalf of PEPS Steering Committee, we congratulate Team Olefin for their accomplishment.



Team Olefin Members:
From left: Chen Yizhang, Razak Bin Kasim, Maarof Bin Sulaiman (Team Leader) and Ho Meng Bing (Sunny Ho not in photo)

#A thermowell serves as a protective barrier between a thermometer (thermocouple) and the process media. Thermowells are found in industrial process systems within refineries and petrochemical plants.

#A thermocouple is a sensor for measuring temperature.

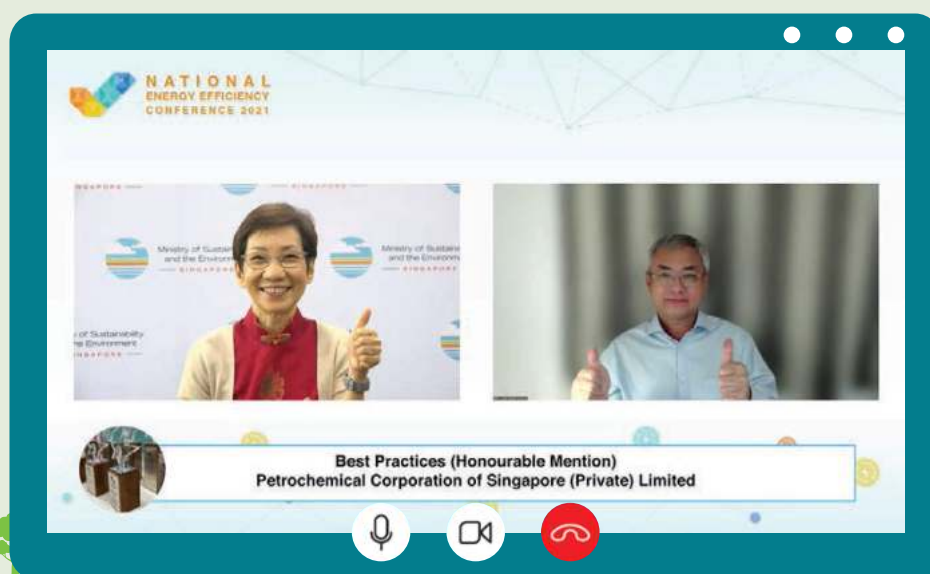
* Function Name as of publication date

Energy Efficiency National Partnership Awards 2021



Lin YiLin
T&O

Energy Efficiency National Partnership (EENP) Awards recognise local companies and organisations that have adopted a proactive approach towards better energy management, as well as individuals for their efforts and achievements in energy efficiency.



GM(P) Er. Lucas Ng Hong Kiang receiving Honourable Mention Award from Minister Ms Grace Fu

In view of the current COVID-19 situation, EENP Awards 2021 was held virtually in conjunction with National Energy Efficiency Conference (NEEC) 2021, in which companies in the industrial sector shared their best practices in improving energy efficiency and case studies of their successful projects.

The theme for this year's NEEC is

HARNESSING ENERGY EFFICIENCY FOR RECOVERY

The conference focused on company's attention on preparing for the future through identifying energy efficiency opportunities and investing in energy efficiency.

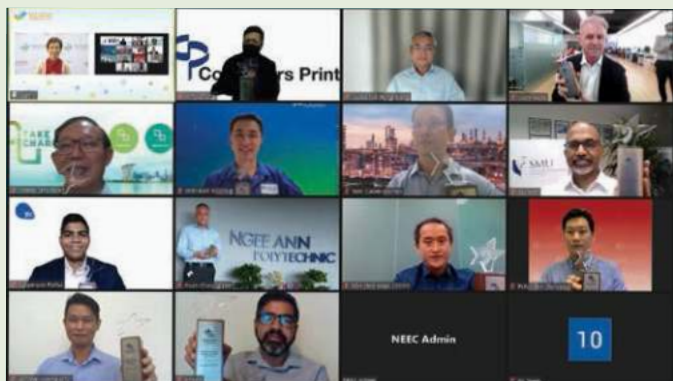
In her opening address, the Guest-of-Honour Ms Grace Fu, Minister for Sustainability and the Environment, recognised the effort of the EENP programme and emphasised on the importance for businesses to invest in energy efficiency initiatives to reduce the risk of being affected by fluctuations in energy prices. At the EENP Awards 2021, PCS bagged one award – **Best Practices (Honourable Mention) category**. Er. Lucas Ng Hong Kiang, PCS General Manager (Plant), received the award virtually from Ms Grace Fu, on behalf of PCS.

Following the Awards ceremony, PCS was given the honour to share about its energy efficiency improvements efforts in one of the Breakout Sessions–Best Practices in Industrial Energy Efficiency.

Er. Ee Boon Siong shared on PCS's innovative approach to improve the thermal efficiency of Waste Heat Boiler (WHB) by installing a new economiser at an existing vacant space. The additional waste heat recovery helps to reduce fuel consumption and lower CO₂ equivalent emission which brings about additional carbon tax savings.

Other speakers also shared on their energy efficiency initiatives such as heat integration project, tuning of olefins compressor capacity surge margin reduction as well as gas turbine upgrades using advanced technologies.

This annual event provided a platform for firms to evaluate some of the market-proven technologies in their field and capture any potential opportunities in energy efficiency improvement. As the world works towards a low carbon future, sustaining efficient energy utilisation is vital for climate and economic resilience.



Winners of EENP Awards 2021 with Minister Ms Grace Fu.



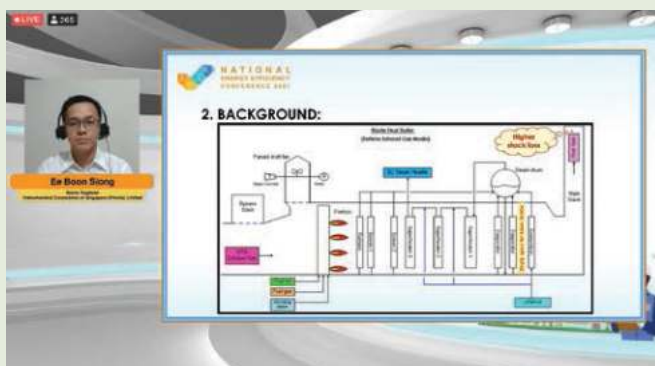
Mr Shyamal Kumar Sarkar (Top), along with Er. Ee Boon Siong (Bottom) were featured in the EENP Awards 2021 video.



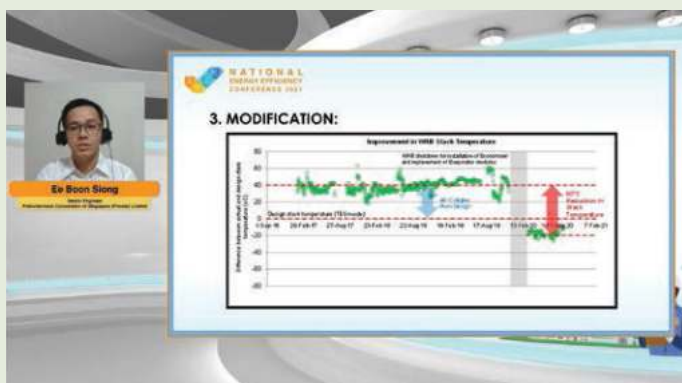
The Q&A session offered another opportunity for EENP participants to engage further with Er. Ee Boon Siong.



Er. Ee Boon Siong showcasing PCS's innovative approach to improve waste heat boiler's thermal efficiency.



The existing vacant space in the firebox of Waste Heat Boiler offered an opportunity to install a new economiser to increase the residual waste heat recovery from the hot exiting flue gas for preheating the ultra-high pressure boiler feed water



The improvement was evidently shown by the reduction of stack temperature of 60°C.

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- [1] National Energy Efficiency Conference (NEEC). (2021). https://www.neec2021.sg/101/about_us
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- [3] Chua, Nadine. (2021, October 12). Firms should invest in energy efficiency to reduce exposure to price fluctuations: Grace Fu. <https://www.straitstimes.com/singapore/environment/firms-should-invest-in-energy-efficiency-to-reduce-exposure-to-price>



PCS Employee Participation Scheme PEPS Dialogue 2021



There's a way to do it better – find it!

Thomas A. Edison

Share Your Ideas Learn From Others

PEPS Dialogue 2021

PEPS Dialogue is an annual event organised by T&O Plant Services, to share good ideas and good work practices. It is also to recognise our employees' contributions that add values to our company.



Chong Hon Yeng
IT & Plant Services*



The theme for this year is **"There's a way to do it better - find it!"** - a quote by Thomas A Edison, who has been described as America's greatest inventor and innovator. This theme could not be more apt to the spirit of our employee participation scheme to Make Our Ideas Work!

The dialogue was held virtually on 25 Nov 2021 via Webex, attended by Management with more than 60 of our staff.

In GMP's opening address, he stressed that Management firmly believes every PCS employee has a role to contribute to productivity, safety & security, and plant reliability. And that every problem solving is an opportunity to innovate. He urged all to upkeep the spirit of innovation and productivity at every level of the workforce. He reiterated that **PEPS** contributes to our company's core safety & reliability performance, along with **BBSO** (Behaviour Based Safety Observation), **STAR** (Stop and Report), **SPS** (Speak out for Safety), **Near Miss Report**, and **RMT** (Reliability Management Team).

These programmes work hand-in-hand to achieve the first quartile of the facility reliability, henceforth we need to continue our effort to sustain there core activities.



On behalf of Management, he thanked our workgroup's continuous participation in the Innovation & Quality Circles, and that our team from Olefin-I did well in the Team Excellence Assessment to receive the STAR award – see another article.

Another accomplishment brought up was the Energy Efficiency National Partnership (EENP) Awards 2021 for Best Practices in our Innovative Approach to Improve Waste Heat Boiler's Thermal Efficiency – see article in this issue.

In one of the programme, PEPS Assistant Secretary Chong Hon Yeng presented the Find Scheme. The scheme is designed to encourage employees (and our workers) to carry out their tasks to attain early detection of the unfavourable condition and take

corrective measures to prevent a potential failure.

He highlighted a few significant finds:

- **A badly corroded and perforated dummy pipe support may break and drop**
- **A thick layer of white foamy sludge inside the dyke of blowdown drum, which could overflow and pollute the adjacent permeable ground**
- **Tower platform mid rail and handrail wrapped inside piping insulation resulted in water ingress causing corrosion under insulation (CUI), which could result in leakage of hydrocarbon**

Let's continue our effort to be vigilant to pick up tell-tale signs of potential process safety issues.

The main event of the dialogue was the workgroup sharing, where 12 topics from various functions were presented. All presenters received a Token of Encouragement via a virtual handshake.

The annual PEPS Dialogue is certainly a good platform for sharing ideas, learning from others, and to Make Our Ideas Work!

Temasek Polytechnic Student Internship Programme (SIP)

PCS has been supportive of Institute of Higher Learning (IHL) Industry Attachment (IA) programmes.

The IHL-IA programme is critical in providing students with a first-hand experience of what a career in the chemicals industry is like, and in shaping the perception that students have of the industry. As such, improving the IA experience for the students would be a good way to attract them to the industry.

PCS hosted two students – Theodore Eu and Wayne Lee, from Temasek Polytechnic for their Student Internship Programme (SIP) from 15 Mar 2021 to 10 Sep 2021. During the period of their attachment, they were assigned to Maintenance I&I (Inspection & Integrity), I&S (Instrument & System) and Olefin-I Team A Hot Section.



From left: Wayne Lee, Mr Chong and Theodore Eu



Chong Hon Yeng
IT & Plant Services*

Objectives of the Industry Attachment are:

- ✓ Provide students with on-the-job training, acquiring skills and knowledge relevant to their course of study
- ✓ Allow students to develop practical knowledge and skills relevant to their future careers
- ✓ Allow students to assess if there is an "organization/job fit" between themselves and The Company
- ✓ For companies to be an industry partner of choice and good corporate citizen in engaging and supporting the community at large, especially with Institutes of Higher Learning (IHL)
- ✓ For companies to identify, recruit, and retain high-quality candidates for employment upon graduation

* Function Name as of publication date

These are their reflections on the learning journey in PCS (written by the respective students):

I am in the final year of my diploma course in Chemical Engineering at Temasek Polytechnic. I was given an opportunity to join PCS for my 6-month internship programme to experience the working life in a petrochemical plant.

I was attached to I&I and I&S for three months followed by Olefin-I Team A Hot Section. While in I&I, the things I learnt were totally different from my course as it is more towards Mechanical Engineering. I was taught about the different types of non-destructive examinations such as liquid penetrant test and ultrasound thickness gauge.

While in Olefin-I, I went through three months of shift duty which I had not done it before, and hence it was quite an experience. I was taught the different types of equipment, such as the cracking furnaces, pumps and heat exchangers.

In the classroom, my understanding of furnace was just for cracking of hydrocarbon. However, now I understand that the furnace system is such a delicate and sophisticated system which requires 24/7 monitoring for a safe operation.

The valuable experience I gained is something classroom learning could not have provided. For that I felt blessed to be on a learning journey while in PCS.

- Theodore Eu



I am currently pursuing my Diploma in Chemical Engineering at Temasek Polytechnic. As part of the diploma programme, I was required to go through 6 months of internship to gain experience of working life. This opportunity of working in a live chemical plant gave me greater insight as to how it operates and demonstrates the knowledge learnt in school being applied.

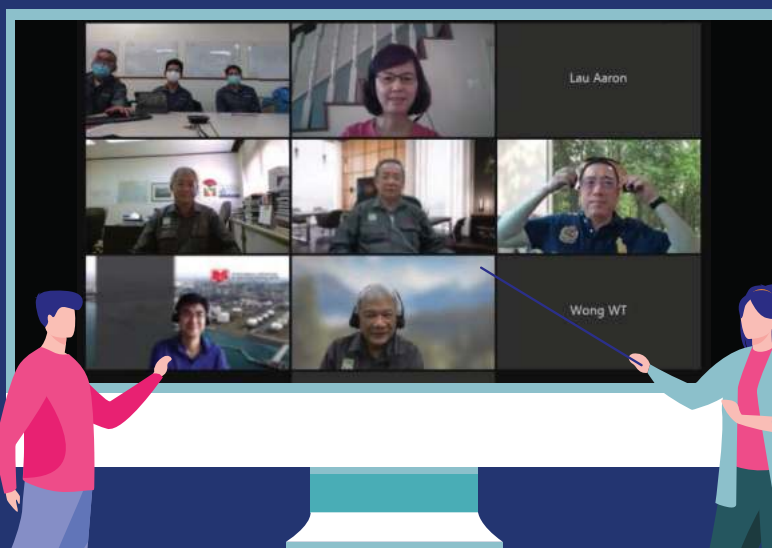
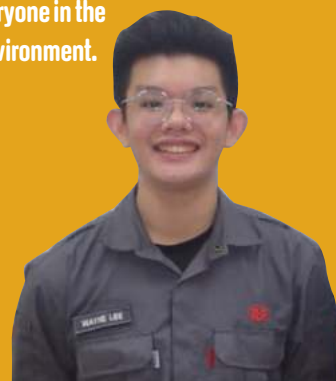
In the first three months, I was attached to Maintenance Instruments & System (I&S), as well as Inspection & Integrity (I&I). In I&S, the skills taught there were closely tied to what I have learnt in school. The various instruments and principles behind how it worked, except that it was on a larger scale. This enlightened me that knowledge learnt in school is essential and applicable in chemical plants.

In I&I, I was uncertain what was in store for me as the description of this Function was unlike anything I had ever been taught in school. I learned about the different Non-Destructive Examinations (NDEs), which were used to inspect equipment and pipes throughout the plant. This showed me that a chemical plant does not only revolve around chemical engineering, it also seeks out the skills and knowledge of other lines of study such as Mechanical Engineering.

For the last three months, I was attached to Olefin-I Function. I learned about the various processes in detail, as well as the equipment that keep the plant running. I would follow my supervisor to the plant where I observed how he does his routine logging and inspection. He would also enrich me with knowledge of the equipment. This gave me a deeper understanding of the existing knowledge I had about processes in a plant.

Overall, I feel that the six months learning journey in PCS has truly been an eye-opening experience for me. It has shown me that there are a lot of planning and considerations to ensure the smooth operation of the plant, alongside the importance of ensuring everyone in the plant has a safe working environment.

- Wayne Lee



The students did a presentation to GMP, respective managers and mentors at the end of their internship programme.

ITE Work-Study Diploma Awards Presentation Ceremony



Chong Hon Yeng
IT & Plant Services*

ITE (Institute of Technical Education) Work-Study Diplomas, started in 2018, is an apprenticeship avenue for ITE Nitec (National ITE Certificate) and Higher Nitec graduates, and workers who have many years of working experience but wish to obtain academic qualifications for their career progression.



Under this scheme, the trainees learn on-the-job at the workplace and off-the-job in ITE. This enables trainees to link the classroom training with the hands-on authentic training at the work place.



As co-training partner, sponsoring companies get to enjoy grant support from the Government, and also work closely with ITE in conducting the training for the trainees.



Employees who enrol into the programme continue to receive salary and employment benefits throughout the two and a half year duration of the training. And for sponsoring companies, they get to develop existing staff capabilities.



Two PCS employees enrolled for the Work-Study Diploma in Chemical Process Technology (WSDip in CPT) in April 2019. They were Muhammad Nur Ikhsan Bin Ali Zainalabidin and Tan Jia Jun, from Olefin-I Function. Both graduated in September 2021, and Tan Jia Jun emerged as the top student of his cohort.



At the Work-Study Diploma Awards Presentation Ceremony on 6 Dec 2021, he received his award from Mr Chan Chun Sing, Minister for Education. Accompanying him on the stage is General Manager (Plant), Er. Lucas Ng HK.

We congratulate Tan Jia Jun for his achievement, and wishing him all the best in his future endeavours.



**ALL
THE
BEST!**

* Function Name as of publication date

ChemEx 2021

The Chemical Industry Experience (ChemEx) is an annual industry profiling event to raise awareness among tertiary students of the various career opportunities in the Oil & Gas, Petrochemical, Chemicals & Energy industries. This year, ChemEx 2021 was held on 8 Oct 2021 and it was the second time that the event was held virtually in light of Covid-19 Safe Management Measures (SMM). The special webinar session held on Zoom, was co-hosted with the Singapore Chemical Industry Council (SCIC) and had almost 100 participants, which included engineering students from ITE, Polytechnics, and Universities.



Jessica Tan
T&O



Low Kah Yi
Maintenance



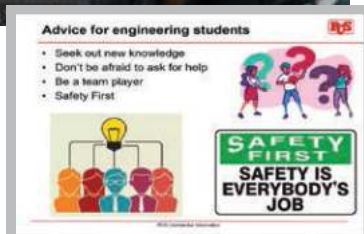
The session started with Mr. Gerald Lim from HRA introducing PCS via the corporate video, where state-of-the-art facilities of PCS were showcased, highlighting key roles of PCS as an upstream petrochemical company, providing chemicals, utilities, and facilities to downstream companies in the Complex, Jurong Island, and in the region.

The session continued with sharing sessions from Mr. Low Kah Yi, Instruments & Systems Engineer, and Ms. Jessica Tan, Technology & Engineering. They shared their educational backgrounds, the nature of their work, challenges, and motivations, and ended off with valuable advice to the students. Highlights include the importance of safety in the process plant, troubleshooting in a 24/7 manufacturing environment, and most importantly, that every day is a learning opportunity and to learn from others, so do not hesitate to ask questions.

The most awaited Q&A segment, towards the end of the event, students could be seen to be genuinely interested in the industry. There were questions relating to internship opportunities, career progression, employee benefits, as well as how PCS is playing a part in encouraging sustainability, and being a Responsible Care company.

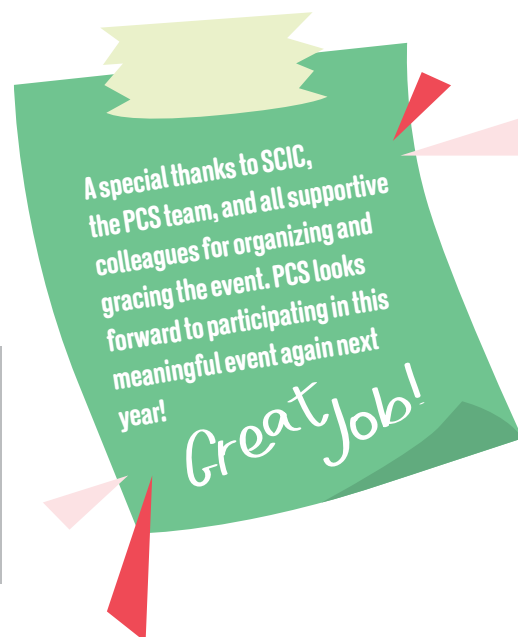


Ms. Jessica Tan, Technology & Optimisation was sharing her slides



Mr. Low Kah Yi, Instruments & System was presenting his slides

Overall, it was an enjoyable session and a humbling experience for the presenters to be able to share their personal experiences with the students and increase the awareness of PCS and its contributions to the petrochemical industry.



Sawano-san's Experience in SG



Naoto Sawano
T&O



“

First of all, I would like to express my deepest appreciation for your support during my training in PCS over the last 3 years. To be assigned to PCS was, honestly, a very big event in my life - different culture, different work and different language as well. Before joining PCS, I was worried about a new life in Singapore. But eventually I had no difficulty to proceed with my training, thanks to everyone's solid support. And now, time flies, I have completed 3 years of training and I have transferred to No.1 Manufacturing department in Chiba Works as of November 2021.

”



Pictures were taken before COVID-19

As you may know, Sumitomo Chemical had shut down its Ethylene plant in Chiba in 2015. And now we are working with Keiyo Ethylene Company (KEC) closely. Even after Ethylene plant shut down, knowledge of Ethylene plant is still required in Sumitomo Chemical for production planning and coordination work in Chiba Works. That's the reason the training in PCS was planned.

The first half of my training was in P&OT. I studied the Ethylene process and had the opportunity to carry out some plant tests with many sampling and QC analysis thanks to everyone's support. The second half of the training was in PP&C. I learnt production planning using simulators and petrochemical complex management and coordination. I really enjoyed working and studying with you, and have learnt a lot from you all as well.

My task in the training is, of course, to learn Ethylene process and petrochemical complex management. But another objective of this training is to make the relationship deeper between PCS & Sumitomo Chemical. My training is done, but I don't want to cut off the relationship with PCS guys. I hope to keep in touch with you, and hope that I will have the opportunity to work with you again. I wish you well, and hope you succeed in all your future business.



@Shichi-go-san

which is an annual Japanese festival to celebrate the growth of children. My son is already 5 years old now. He stayed in Singapore longer than Japan!



“HEALTHY LIVING” - FRUITS & SNACKS BAG DISTRIBUTION



Cerine Lim
HR & Admin

One of the best ways to stay healthy is by maintaining a nutritious diet. A healthy diet would boost our immune system which is especially important during this COVID-19 pandemic. Besides that, taking daily precautions such as washing your hands, being mindful about social distancing, exercising, and getting sufficient rest are some of the ways to lower risk of infection.

SSRCC continues our efforts to promote healthy living, through providing our employees with healthy fruits & snacks bags. The committee had carefully curated a variety of exotic fresh fruits, organic dried nuts, chips and vitamin C products. The fruits bags distributions were spread over four sessions on 23rd Nov, 26th Nov, 30th Nov and 3rd Dec 2021 to ensure that different shift teams would receive the fruits at their freshest.

As Year 2021 comes to a close, SSRCC wishes all our colleagues and their families a safe, healthy and wonderful Year 2022 ahead!



CRUISE TO NOWHERE...



P Radhakrishnan
Maintenance

Wouldn't you be excited to pick up your passport that was lying idle in the dark corner of one of those drawers and use it again? Twenty one months without traveling out had been too long for us! My family and I were simply exhilarated at the very thought of going on a cruise! Cruise to nowhere... We booked a balcony stateroom on Royal Caribbean's 'Quantum of the Seas' for a 3N/4D cruise. Let's not get fooled about the '4 days' claim - the ship actually sets sail at 9 pm on Day 1 and docks again at 6 am on Day 4! They call that 4 days.... I would just call it a 3N/2D cruise ... LOL!

Quantum of the Seas' is one huge ship that was built in 2014. It boasts of first-class features such as a simulated skydiving, a glass observation pod (North Star® offers 360-degree views from over 90 metres above sea level. Winner of the Guinness World Record for tallest viewing deck on a cruise ship), the largest indoor sports and entertainment complex at sea, larger and more advanced staterooms, several specialty restaurants in addition to the main dining room, 24-hour café and Sorrento's pizza, Bionic Bar where robots mix your cocktails, casino, swimming pools, Jacuzzi hot-bath and a lot more. The shows on board 'Quantum of the Seas' are simply world-class and designed to dazzle. The booking for the shows, specialty restaurants and games is all made easy through their 'Royal App'.



Quantum of the Seas
(photo courtesy – Royal Caribbean)

The ship strictly follows COVID-19 protocols in line with prevailing Singapore rules including the use of 'Trace Together' app/device for passengers' health and safety. In addition, they also require passengers to wear a 'Tracelet' on the wrist for contact-tracing.... Not sure why the duplication! They could have better managed the pre-boarding Antigen Rapid Test (ART) though! The ART was conducted at the multi storey car park of Marina Bay Cruise Centre. The entire process of queuing, testing and waiting for results took close to 2½ hours all in a poorly ventilated, humid area! After that, it was all smooth and fun-sailing.



Fooooood!



More fooooood!

Writing about the cruise isn't complete if I don't mention the food. ☺ Whether you're craving dishes from other continents, a romantic setting for the perfect date night, or quick snacks for easy refuelling in between thrills, expect every meal to be extraordinary at their restaurants. Walk-in for breakfast, lunch or dinner (all multi cuisine) at the Windjammer and the main dining room. These food places have plenty of seats by the windows and you can get a great view of sunset or sunrise while you enjoy the buffet food! Or go on a taste bud-teasing tour around the world: Chinese-inspired cuisine at The Hot Pot, sushi rolls and Japanese flavours at Izumi, Italian cuisine at Jamie's Italian by Jamie Oliver or have steak at the American Chops Grille. After watching the shows, we even enjoyed supper - hot dog at Dog House and New York-style pizza at Sorrento's. Warning - Leave your diet programs if any at home before you board the cruise! LOL.

I would be doing grave injustice if I do not write about other extraordinary places on the ship.

#1 TWO 70

The venue gets its name from the 270 degree view that you get from the back of the ship. The place is a marvel where cutting edge

technology transforms 270 degrees of windows two storeys high right before your eyes. During the day, you're soaking up sweeping ocean views and when night falls, the space transforms into a multimedia theatre that comes alive with robotic dancing screens, moving stage and much more. Other than the comfy furniture and ocean views, there are the six robo-screens! These six, giant robotic screens are used for the main show StarWater, but also have their own mini-features. Employing technology used to build luxury vehicles, these robo-screens work in coordination with one another to create some very unique and interactive shows. It was really awe-inspiring!



On the top deck with the observation pod on the background



Sunrise view from the stateroom balcony

#2 Solarium

The Solarium, a relaxing indoor-outdoor retreat is just for adult passengers. It's filled with a lot of sun and serenity! Perfectly positioned at the front of the ship, the crystal canopy area presents fantastic views and stays cool in spite of the hot sun. The Solarium features a series of cascading lagoons in the centre and Jacuzzi hot-tubs by the sides. The Solarium has a bar too! Btw, there are several classy bars too spread across various decks in the ship.



Smart robots in action at the Bionic bar



Sipping a cool cocktail on the seas

#3 Seaplex

The largest indoor active space at sea is also the most revolutionary. It offers a full-size basketball court and bumper cars at sea. In addition, there is a games arcade, table tennis, a huge gym, an outdoor 12-metre rock climbing wall, RipCord® by iFLY® the skydiving simulator and FlowRider® the surf simulator. We just had to book through the app and report at the scheduled time. No queuing (except for rock climbing)... Cool!



Before rock climbing



Bumper cars at the Seaplex

With COVID-19 protocols imposed on air-travellers in every country, pre-departure PCR test here, PCR test there, controls at airports, VTL rules, quarantine requirements, limited flights operating, increased airfare, etc., don't you think it is just cool to go on a cruise to nowhere? We strongly felt so! It was like stepping out of Singapore without really stepping out! LOL.

What more could we ask for when we had 3N/2D of stress-free stretching of legs in the balcony watching the sunrise / sunset, great food, pseudo-adventure thrill, lazy time in the hot-tub and world-class shows! And, not to forget the splendour of the star-filled sky from the top deck!

EMPLOYEE NEWS



NEW EMPLOYEE



Mr Soong Beng Hock

Lead Technician, Quality Control
Joined - 1 Nov 2021
Hobbies : Reading



Ms Sharona Vaani d/o Chandra Mogan

Legal Counsel, Legal
Joined - 15 Nov 2021
Hobbies : Reading, Writing
Swimming, Cycling & Golf



Ms Lim Hui Qin

Officer, Business Development & Planning
Joined - 6 Dec 2021
Hobbies : Swimming , Badminton, Jogging



Mr Andreas Tangguh

Senior Engineer, Engineering
Joined - 23 Dec 2021
Hobbies : Reading, Photography, Soccer, Basketball, Cycling

HEARTIEST CONGRATULATIONS

marriage



NAME	FUNCTION	SPOUSE
Kira Chng	HSE	Ms Tan Pei Qi
Soo Jun Hao	Maintenance	Ms Khoo Lih Yan

births



NAME	FUNCTION	NEW BORN
Ahmad Khalid bin Salleh	Fire & Security	Girl
Gerald Lim	HRA	Girl
Mohamed Yusri bin Yusoff	Olefin-I	Girl
Muhammad Faiz bin Zailani	Olefin-I	Twins (Boys)
Mohammed Naim bin Mohammed Wahid	Olefin-II	Girl



LONG SERVICE

Award Recipients for
Oct-Dec 2021



5-Year

Lim Jun Ming Alvin	Olefin-I
Phang Bixi Yazid	Olefin-I
Muhammad Nur Ikhsan bin Ali Zainalabidin	Olefin-I
Muhammad Ashaari bin Hasan Basri	Olefin-II
Abdul Raimi bin Abdul Rahim	Olefin-II

10-Year

Amzah bin Abdul Rahim	Fire & Security
Koh Kok Eng	Quality Control

15-Year

Pan Zijia	Olefin-II
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25-Year

Mow Jiun Yih	IT & Plant Services*
Rasid bin Mohamed	Olefin-II
Wong Chee Yin	Quality Control

* Function Name as of publication date