

Petrochemical Corporation of Singapore (Private) Limited



Annual PCS-Contractors HSE Meeting 2022

Review of HSE Performance for 2021

Ms Tan Peck Luan Senior HSE Officer

21 January 2022



Review of HSE Performance



- 1 Safety & Environmental Performance
 - 2 Behaviour Based Safety (BBS) Activities





3 Safety Performance Awards



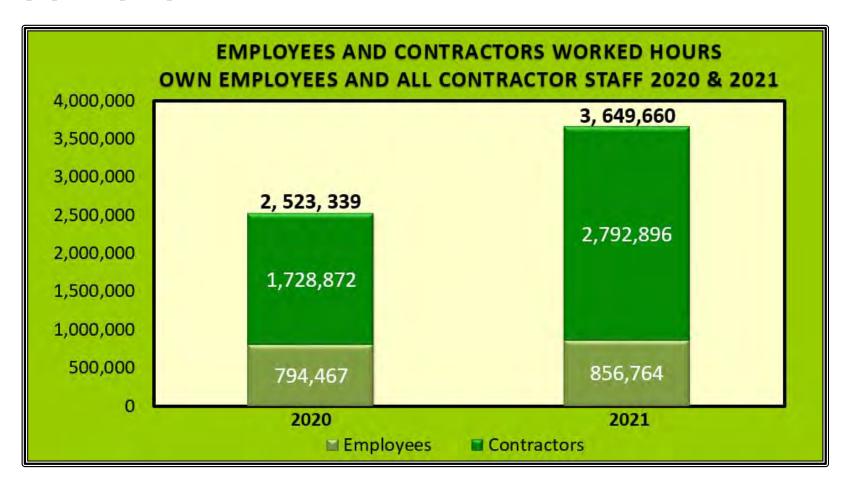
- 4 WSHC bizSAFE Programme
 - HSE Achievements in 2021



6 Next Safety Performance Target

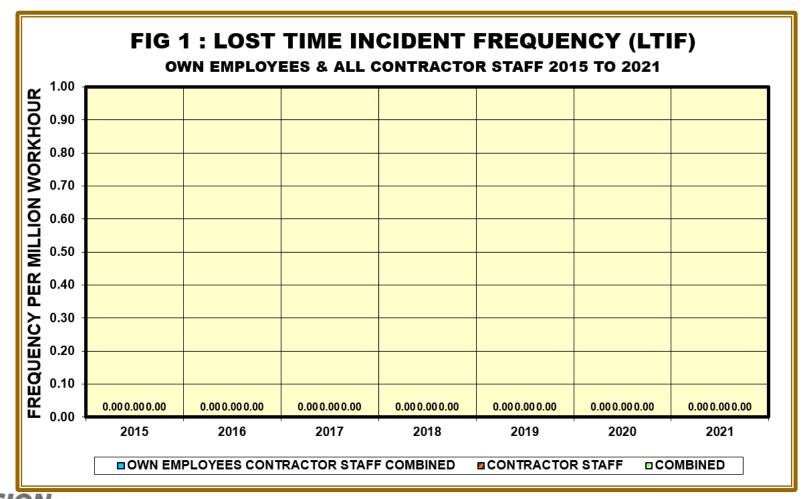


(a) Employees and Contractors Worked Hours in 2021



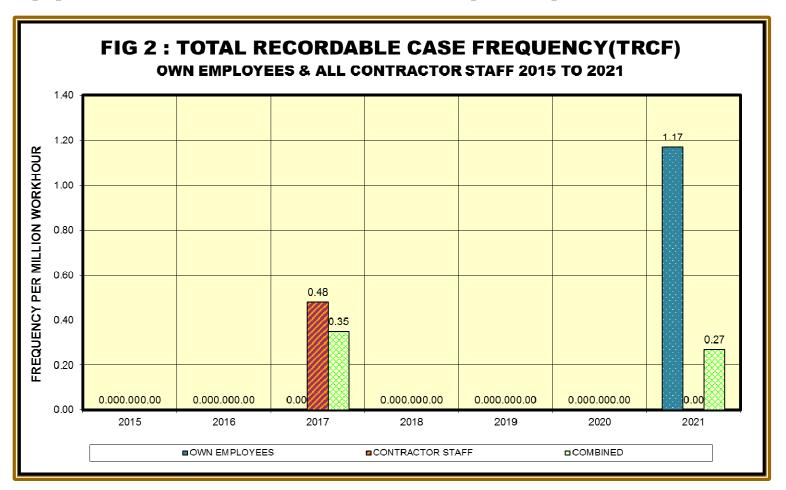


(b) Lost Time Incident Frequency [LTIF]



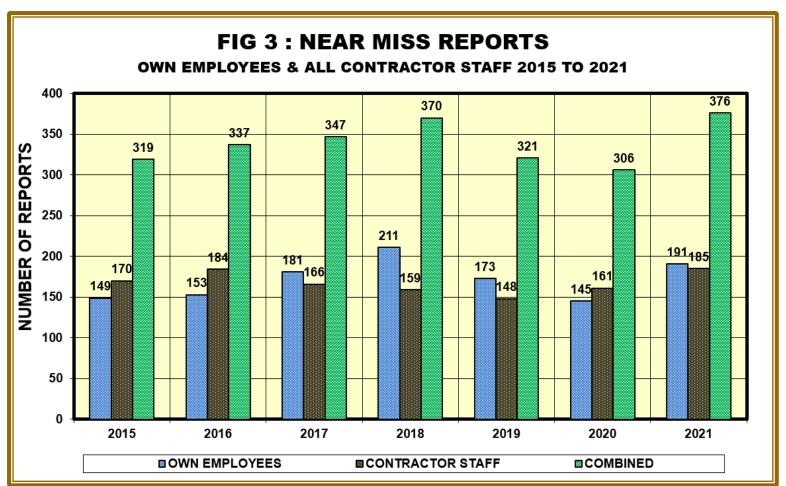


(c) Total Recordable Case Frequency [TRCF]



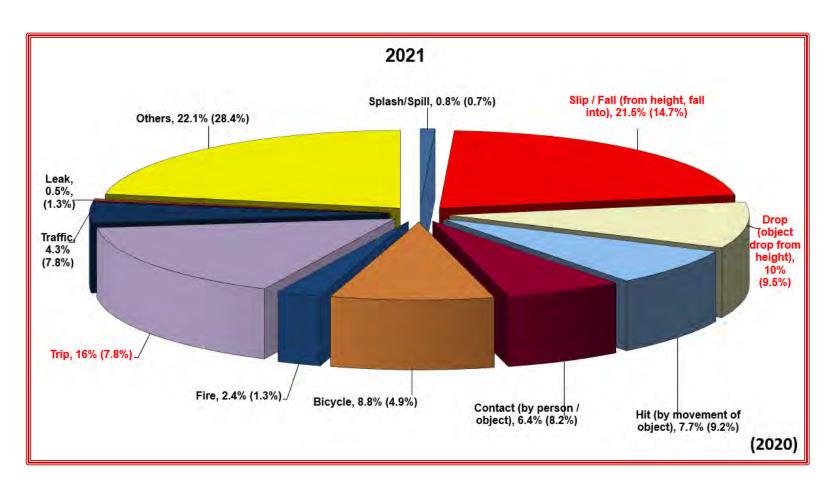


(d) Near Miss Reports [NMR]



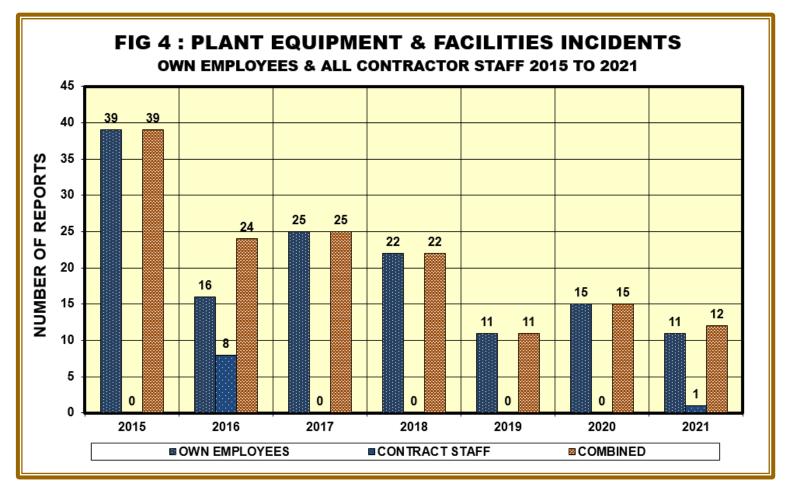


(e) Breakdown of Near Miss Reports [NMR]



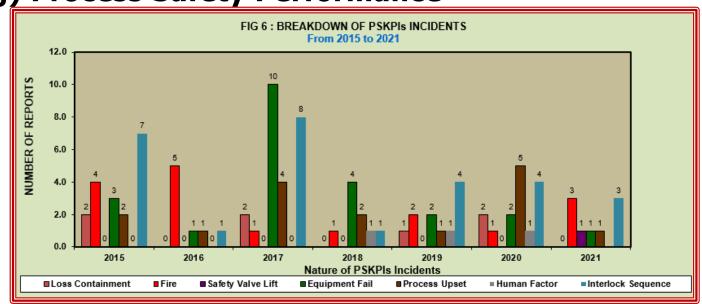


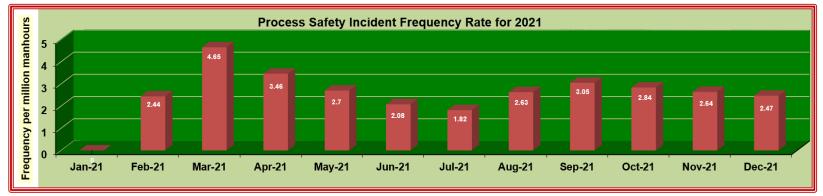
(f) Plant Equipment / Facilities Incidents [PEF]





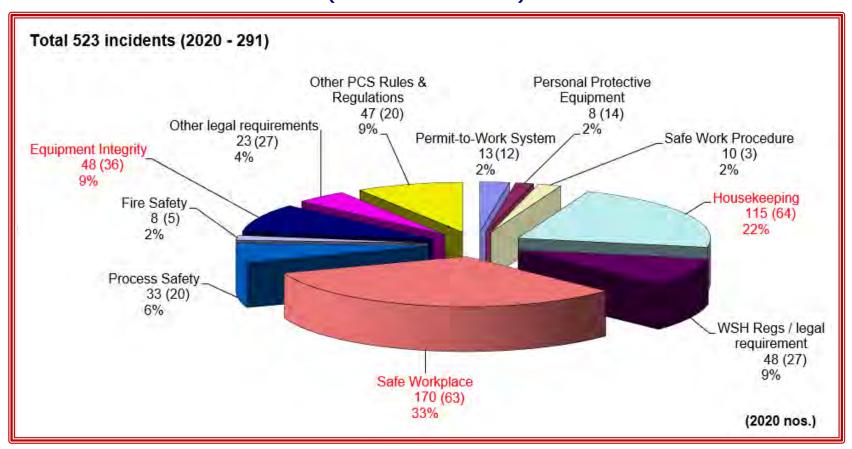
(g) Process Safety Performance







(h) Nature of Observations/Violation/Breaches - 2021 (HSEO site visit)





(i) Environmental Performance

- No major environmental incident in PCS
- Meeting National Environment Agency limits on air emissions and trade effluent discharge







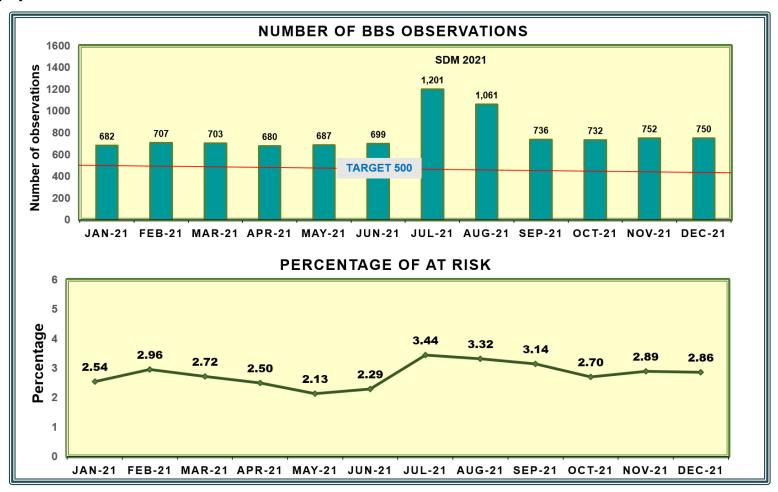


- a. BBS Observations
- b. Nature Of Behaviour Based Safety Observation
- c. Monthly Exemplary Safe Staff / Worker Role Model
- d. BBS TRUsT Champion Award
- e. SDM 2021 BBS Activities
 - High Intensity BBS TRUsT Observation (HIBTO)
 - SDM 2021 BBS Star Models



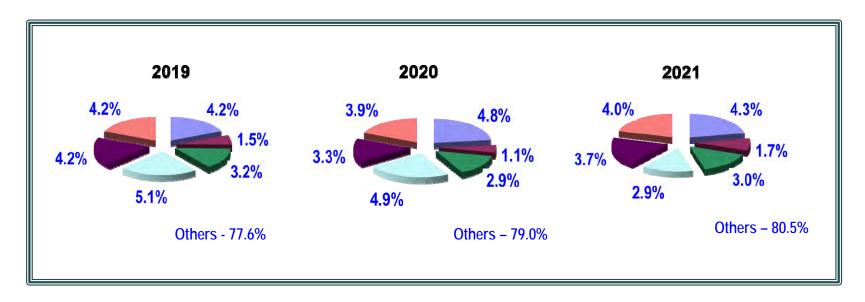


(a) BBS Observations





(b) Nature Of Behaviour Based Safety Observation









- Started since June 2015
- Each month, a PCS staff and a contractor worker are selected by the BBS Steering Committee for demonstrating safe and good work behaviour and practices
- These role models will each receive a token appreciation of S\$50 and acknowledged accordingly on our notice boards and LCD media displays

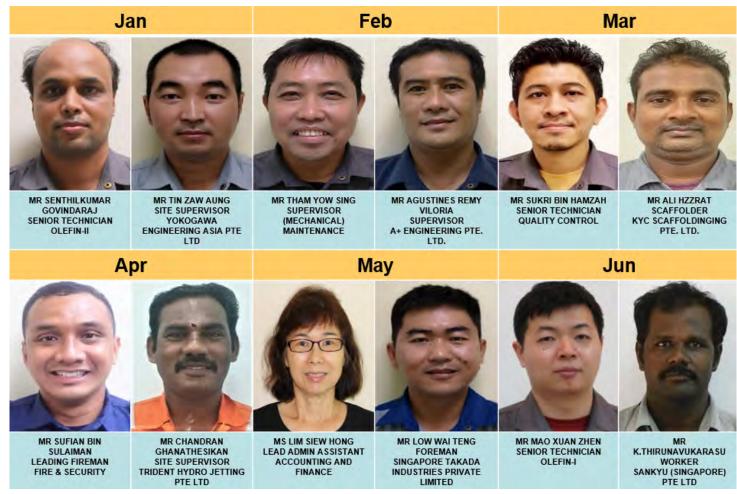






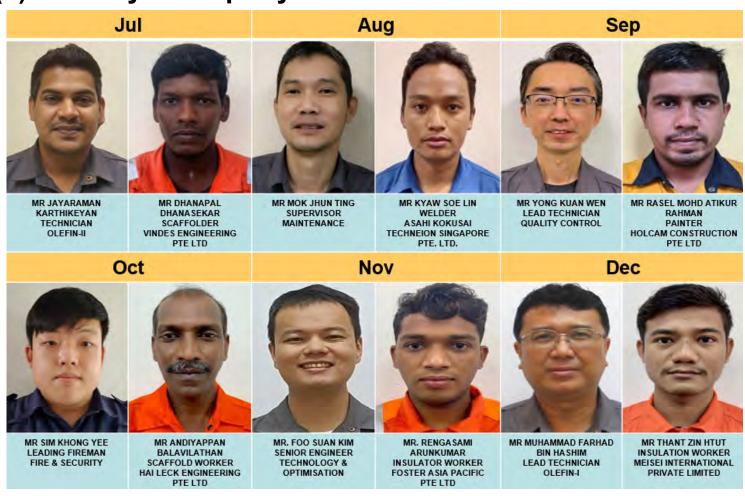
















(d) BBS TRUsT Champion Award

Behaviour Based Safety Champion Award for 2020/2021



Shukri bin Ali Alragi Bafadal Fire & Security

learnt from my Officers and my colleagues, and through their guidance, I carried out site patrols and kept a lookout on how to improve the working conditions in PCS through OBBS submissions.

I always believe that 'Safety should be everyone's responsibility'. All of us wants to work in a safe environment and return home to our families after work.

I will continue to work hard and hope to further enhance the working conditions in PCS, and to ensure a safe and secure working environment for all. Thank you.











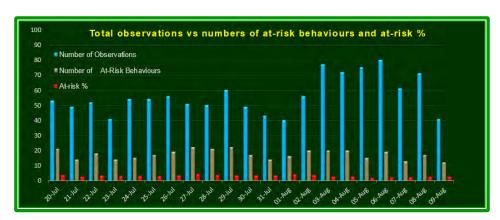
(e) SDM 2021 BBS Activities

- HIBTO
 - To enhance safe work behaviours by:
 - Providing greater awareness of Behaviour Based Safety
 - Participation of supervisors and workers
- BBS Star Models
 - One Supervisor and three workers will be selected every 4 days
 - > \$50 cash vouchers awarded to the selected models
 - Photos of BBS STAR models will be displayed on SDM notice boards





SDM 2021 HIBTO Statistics



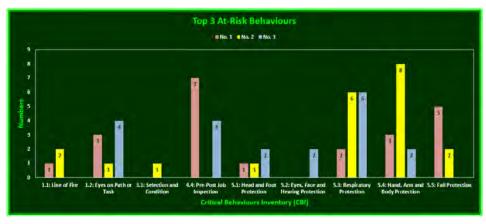
Hot work period: 20 Jul ~ 09 Aug 2021

Total nos of observations: 1185

Daily average obs: 56 (Daily Target: 36 obs)

At-risk percentage during hot work

period: 2 ~ 4 %



Overall % At-risk					
No	СВІ	% At- risk	Rank		
5.3	Respiratory Protection	5.7	1		
5.5	Fall Protection	4.76	2		
5.4	Hand, Arm and Body Protection	4.53	3		







SDM 2021 BBS Star Models (20 July to 9 August)



Munshi Asadul PEC Supervisor 2SE PLANT



C Kolonginadan PEC worker 2SE PLANT



M Vincent Melgan PEC worker 2SE PLANT



I. Subhash PEC worker 2SE PLANT



Low Wai Teng STK Supervisor 2SP/2ARO PLANT



Wong Yook Hong LKW Worker 2SP/2ARO PLANT



Nay Yu Min Hlaing GULF Worker 2SP/2ARO PLANT



Hossain Monir CE Worker 2SP/2ARO PLANT





SDM 2021 BBS Star Models (20 July to 9 August)



Eric Gavion Bidon SKS Supervisor 2SU PLANT



V. Xavier RIMC Supervisor 2SB PLANT



Izat Asyraf B Ruzihan Waterwell Worker 2SU PLANT



Hoque Aynal RIMC Worker 2SB PLANT



Sokkalingam A&S Worker 2SU PLANT



K. Murugan RIMC Worker 2SB PLANT



Sumoun Md Shihab GULK Worker 2SU PLANT

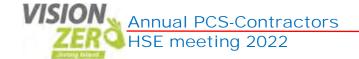


Tan Whee Hiong RIMC Worker 2SB PLANT





- (a) Combined PCS Employees / Contractors Set Target (CPST)
- Award is given when PCS employees and contractors meet the <u>Total Recordable Case</u>
 <u>Frequency</u> set and maintain a <u>Lost Time Incident free</u> period for the <u>quarter</u>
- PCS Employees and Contractors Achieved the Quarterly Set Target for all <u>4 Quarters</u> in 2021
- Contractor workers received vouchers totalling \$\$17,500 for the achievement in each quarter





- (b) Contractors Safety Set Target (CSST)
 - Award is given to the Direct Contractor Company which achieved a <u>One Year Lost</u> <u>Time Incident Free</u> record while working in PCS
 - ➤ Bonus Award given for achieving consecutive 3rd, 5th, 7th, 9th, 12th and every 3-yearly thereafter
 - Commemorative plaques and monetary rewards given for the bonus award



Contractor Companies awarded Commemorative Certificate in 2021

S/N	Company	S/N	Company
1	Petrochemical Complex Contractors Association	15	Long Wei Construction & Engineering Works Pte. Ltd.
2	A+ Engineering Pte. Ltd.	16	Meisei International Private Limited
3	AETOS Security Management Pte. Ltd.	17	Prowess Engineering Design and Services
4	Archiplast Engrg Services & Modelling	18	PSM Aircon & Engineering Pte. Ltd.
5	Asahi Kokusai Techneion Singapore Pte. Ltd.	19	Sankyu (Singapore) Pte Ltd
6	ComfortDelGro Bus Pte. Ltd.	20	Setsco Services Pte Ltd
7	Foster Asia Pacific Pte Ltd	21	Showa Denki (Singapore) Co. Pte. Ltd.
8	Hai Leck Engineering (Private) Limited	22	Singapore Takada Industries Private Limited
9	Holcam Construction Pte Ltd	23	The Wok People Pte. Ltd.
10	Ikari Services Pte Ltd	24	Trident Hydro Jetting Pte Ltd
11	Kurihara Kogyo Co., Ltd.	25	VinDes Engineering Pte Ltd
12	KYC Scaffolding Pte. Ltd.	26	Vortex Engineering Pte. Ltd.
13	Lai Woon Process Pte. Ltd.	27	Weishen Industrial Services Pte Ltd
14	Loh Kim Chay Marine Service	28	Yokogawa Engineering Asia Pte Ltd



Contractor Companies awarded Commemorative Certificate in 2021







Contractor Companies awarded CSST Bonus Award in 2021

	HOLCAM CONSTRUCTION PTE LTD	MEISEI INTERNATIONAL PRIVATE LIMITED	SHOWA DENKI (SINGAPORE) CO. PTE. LTD.
Award	GOLD	GOLD	GOLD
Category	1	1	2
Years worked without LTI	24	33	33
Cheque amount	S\$1000	S\$1000	S\$500

Category 1 – monthly workhour exceeding 6,000 hours

Category 2 – monthly workhour exceeding 1,000 hours but less than 6,000 hours

Category 3 – monthly workhour less than 1,000 hours





Contractor Companies awarded CSST Bonus Award in 2021





3. Safety Performance Awards - Long Service Award



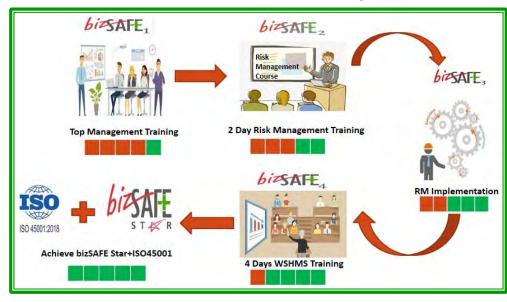






- PCS was one of the pioneering companies to become bizSAFE Mentor since 2011
- PCS status as bizSAFE Mentor has been successfully renewed until 28 Sep 2022

bizSAFE 5-Steps Programme



- All contractor companies to be certified to at least bizSAFE Level 3 before allowed to work in PCS
- Most of our in-house contractor companies are at Level Star, while four of them are bizSAFE Partners







PCS Maintenance Contractors bizSAFE Certification							
S/N	Company	bizSAFE level	Expiry date	S/N	Company	bizSAFE level	Expiry date
1	Hai Leck Engineering (Private) Limited	Partner	02 Nov 2022	11	Meisei International Private Limited	Level Star	04 Aug 2022
2	Kurihara Kogyo Co., Ltd.	Partner	13 Apr 2024	12	Prowess Engineering Design and Services	Level Star	20 Jun 2022
3	Sankyu (Singapore) Pte Ltd	Partner	11 Jul 2023	13	PSM Aircon & Engineering Pte. Ltd.	Level Star	07 Nov 2024
4	Trident Hydro Jetting Pte Ltd	Partner	11 Mar 2023	14	Setsco Services Pte Ltd	Level Star	16 Dec 2023
5	A+ Engineering Pte. Ltd.	Level Star	02 May 2024	15	Showa Denki (Singapore) Co. Pte. Ltd.	Level Star	25 Oct 2024
6	Asahi Kokusai Techneion Singapore Pte. Ltd.	Level Star	12 Sep 2023	16	Singapore Takada Industries Private Limited	Level Star	22 Feb 2023
7	Foster Asia Pacific Pte Ltd	Level Star	30 Nov 2024	17	VinDes Engineering Pte Ltd	Level star	10 May 2022
8	Holcam Construction Pte Ltd	Level Star	07 Sep 2022	18	Vortex Engineering Pte Ltd	Level Star	01 Jun 2023
9	KYC Scaffolding Pte. Ltd.	Level Star	06 Dec 2022	19	Yokogawa Engineering Asia Pte Ltd	Level Star	16 Jun 2023
10	Lai Woon Process Pte Ltd	Level Star	20 Sep 2023				

^{*} PCS Maintenance Sub-Contractors also must be at least bizSAFE level 3 Certification.





	Service Contractors bizSAFE Certification							
S/N	Company	Function in-charge	bizSAFE level	Expiry date				
1	AETOS Security Management Pte. Ltd.	Fire & Security	Level Star	10 Mar 2023				
2	Archiplast Engrg Services & Modelling	Engineering	Level Star	10 Feb 2023				
3	ComfortDelGro Bus Pte. Ltd.	HR & Admin	Level Star	07 Mar 2024				
4	Ikari Services Pte Ltd	HR & Admin	Level Star	10 Dec 2022				
5	Loh Kim Chay Marine Service	Olefin-I	Level Star	08 Aug 2024				
6	Long Wei Construction & Engineering Works Pte. Ltd.	Engineering	Level Star	14 Jan 2023				
7	The Wok People Pte. Ltd.	HR & Admin	Level Star	20 Mar 2022				
8	Weishen Industrial Services Pte Ltd	HR & Admin	Level Star	29 Dec 2023				

* PCS Maintenance Sub-Contractors also must be at least bizSAFE level 3 Certification.





5. HSE Achievements in 2021

- (a) Successful completion of Olefin-II SDM 2021 without a recordable Incident
- (b) Combined 50 million hours worked without LTI 9 Sep 2021
- (c) Workplace Safety & Health Performance Award
- (d) ASEAN-OSHNET Excellence Award
- (e) Jurong Island Vision Zero
 - Steering Towards Safer Roads for All
 - Stop falling for STF (Slips, Trips & Fall) hazards
 - Work Safely at Heights
- (f) Responsible Care ® Awards
- (g) National Energy Efficiency Conference 2021





5. HSE Achievements in 2021

(a) Successful completion of Olefin-II SDM 2021 without a recordable Incident

Olefin-II SDM 2021 Health & Safety Performance

The health and safety performance for SDM 2021 is shown in the following table:

Incident Classification	Employee	Contractor	Total
Lost Time Incident	0	0	0
Restricted Workday Case	0	0	0
Medical Treatment Case	0	0	0
First Aid Case	0	0	0
Plant Equipment & Facilities	0	0	0
Near Miss Case	48	27	75

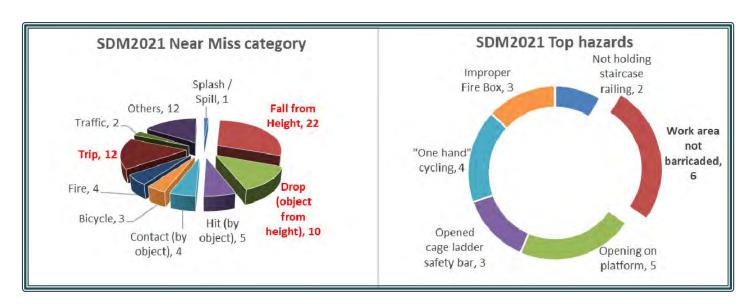
Note: This is the fourth consecutive SDM without a Recordable Incident.





5. HSE Achievements in 2021

(a) Successful completion of Olefin-II SDM 2021 without a recordable Incident



- many unsafe acts / unsafe conditions from SDM Contractors (company / workers not familiar with PCS expectations, health and safety culture)
- various pre-SDM training / briefing / assimilation into PCS culture
- learnings will be incorporated into future SDM programmes
 - core programmes (BBS, SOS, STAR) in place and effective in reducing and mitigating at-risk behaviour and conditions





(a) Successful completion of Olefin-II SDM 2021 without a recordable Incident

Holistic Approach to HSE Activities for Shut Down Maintenance 2021



Lim Kian Hua

Despite the challenging COVID-19 Safe Management Measures (SMM), with split team arrangement and partnership from employees and contractors, we once again achieved good Health, Safety and Environment (HSE) performance with zero recordable incidents in Shut Down Maintenance (SDM).



Manager Mechanical Mr. Timmy Lim taking over the plant from Ole-II Manager Mr. Leonard Chong.





(a) Successful completion of Olefin-II SDM 2021 without a recordable Incident



Did anyone of you spot this on 28 Jul 2021 around 2.30pm during SDM?



Decentralised TBM was conducted on 9 August 2021 at SDM Village.





(a) Successful completion of Olefin-II SDM 2021 without a recordable Incident



Compressor overhaul work in progress at Compressor house



Maintenance Manager Mr. Chew Thiam Huat handed 2BD plant back to Ole-I Manager Mr. Tan Henry.

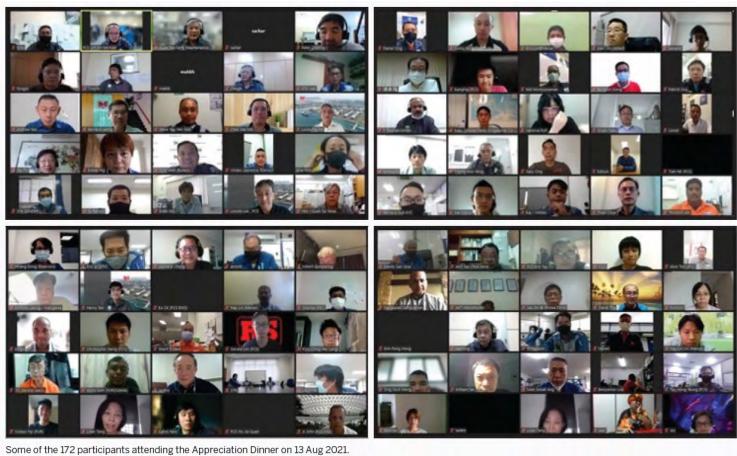


GMP Er Lucas Ng inspecting Ole-II plant with PCS Staff and SDM Contractors Site Managers.





(a) Successful completion of Olefin-II SDM 2021 without a recordable Incident











(b) Combined 50 million hours worked without LTI - 9 Sep 2021





PCS and its contractors have jointly achieved a combined 50 million hours worked without a Lost Time Incident on 9 September 2021.

This achievement would not come about without the commitment and partnership of our Contractors and the Leadership of the Petrochemical Complex Contractors Association (PCCA)

Let us not be complacent, never compromise on health and safety, and continue our efforts on energy efficiency drive for the environment, in governing every aspect of our operations and business. "One Team, One PCS"









50 Million Safety Milestone Commemoration cum SDM Appreciation Ceremony - 2 Dec 2021











50 Million Safety Milestone Commemoration cum SDM Appreciation Ceremony- 2 Dec 2021









50 Million Safety Milestone Commemoration cum SDM Appreciation Ceremony- 2 Dec 2021







(c) Workplace Safety & Health Performance Award

PCS had once again achieved another milestone. We were awarded the prestigious Workplace Safety and Health (WSH) Performance (Excellence) Award by the WSH Council and the Ministry of Manpower.





PCS was awarded the prestigious Workplace Safety and Health Performance (Excellence) Award 2021. This culminates the three consecutive years of being conferred the Gold award (2018-2020).

In view of the current Phase 2 (Heightened Alert) situation amidst the COVID-19 pandemic, there was no physical ceremony this year





(d) ASEAN-OSHNET Excellence Award

- □ PCS was awarded the Excellence Award at the 3rd ASEAN-OSHNET Award Ceremony.
- The ASFAN-OSHNFT Awards is a biannual event started in 2016, aimed at raising the profile of OSH in ASFAN and to better awareness and greater involvement of business leaders in the ASFAN Member States.
- PCS was nominated by Ministry of Manpower for Singapore.





The Awards ceremony in the midst of COVID-19 pandemic was held virtually on 27 July 2021, with the ASEAN-OSHNET Conference in the morning. Our General Manager (Plant), Er. Lucas Ng HK, received the Award on behalf of the company. He also shared PCS' approach and programme "Transformation to Total Workplace Safety and Health - for Vision Zero".



(e) Jurong Island Vision Zero

What is VISION ZERO?

"A movement that aims to inculcate a mindset that all injuries and ill health at work are preventable and a belief that zero harm is possible."



The launch of the Cluster on **23 November 2018** signifies the collective commitment stakeholders have towards a Vision Zero mindset.

Leadership and commitment are key to creating a robust WSH culture. Cluster companies pledged to uphold five key attribute:

- Adopting mindset that all incidents are preventable, opposing to statistical occurrences
- Implementing pre-emptive measures rather than just responding when incidents happen
- Coming up with comprehensive solutions for prevention besides looking at the root cause of incidents
- ➤ Including all within the company's supply chain in cultivating WSH culture
- going beyond basic compliance with regulations, for instance, to implement a holistic management system





(e) Jurong Island Vision Zero

Steering Towards Safer Roads for All



Er Lucas Ng, Chairman of the JIVZ group giving his opening speech at the Jurong Island Vision Zero Forum: Steering Towards Safer Roads for All held on 7 April 2021

- ☐ Jointly organised by WSHC, SCIC and ASPRI on 7 Apr 2021.
- □ A total of 150 participants, including many from PCS, took away valuable knowledge and perspectives on workplace traffic management which forms an integral part of the industry's operations.







(e) Jurong Island Vision Zero

Stop falling for STF (Slips, Trips & Fall) hazards





- □ Jointly organised by WSHC, SCIC and ASPRI on 6 Aug 2021.
- The session was well attended by more than 100 practitioners from the industry and had an informative exchange of practices in managing STF injuries at workplaces.





(e) Jurong Island Vision Zero

Work Safely at Heights

- Jointly organised by WSHC, SCIC and ASPRI on 28 October 2021
- Attended by more than 260 participants.



- Er. Lucas Ng, Chairman of JIVZ Group, opened the forum by pointing out that falls from height are one of the top causes of fatalities. With scaffolds and ladders both being commonly deployed for various work activities in Jurong Island, the risk of falling from height should not be neglected.
- Ministry of Manpower shared several inspection findings relating to scaffolds and ladders, particularly the common contraventions observed.



(f) Responsible Care® Awards

- Excellence Award in six RC Codes, Gold Award in Security Code (first time being introduced).
- SCIC Responsible Care[®] Leadership Award





(g) National Energy Efficiency Conference 2021

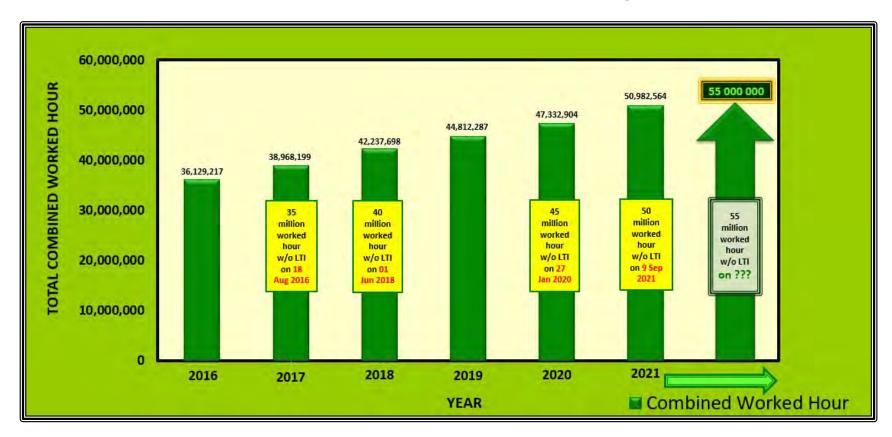
 Best Practices (Honourable Mention) Award for "Innovative approach to improve Waste Heat Boiler's (WHB) thermal efficiency"





6. Next Safety Performance Target

55 million Hours Worked without LTI and beyond ...



** Expected to achieve 55 million hours milestone sometime after Olefin-I SDM 2023





6. . Next Safety Performance Target

Care for the Health, Safety & Environment Share with Our Community



Your strong support to our in-house ongoing HSE activities such as Behaviour Based Safety Observation (BBSO), Stop and Report (STAR), Speak Out for Safety (SOS), and learning past lessons is key to our success... Vision Zero.







Review of HSE Performance for 2021



THANK YOU





