



Review of HSE Performance for 2019

Presenter

Er. Tan Henry Olefin-I Manager

Annual PCS-Contractors HSE Meeting 2020 21 January 2020







Review of HSE Performance





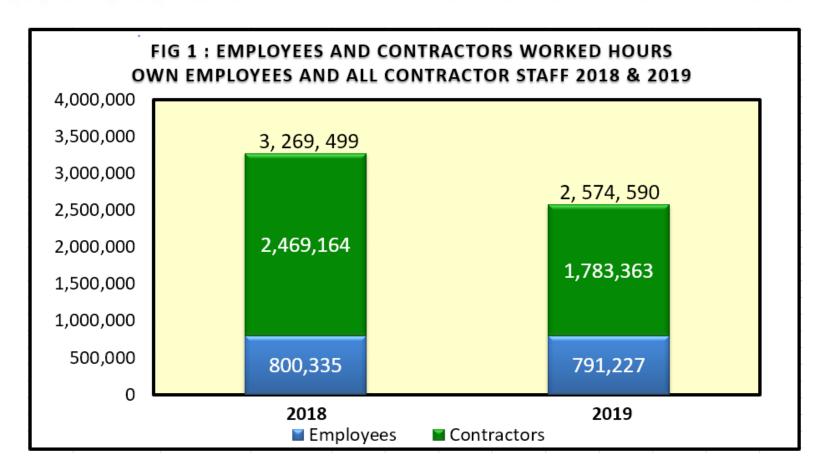
- 1 Safety & Environment Performance in 2019
 - 2 Behavioural Based Safety (BBS) Activities



- 3 Safety Performance Awards 2019
- 4 WSHC bizSAFE Programme
- 5 HSE Achievements in 2019
- 6 Targets for 2020

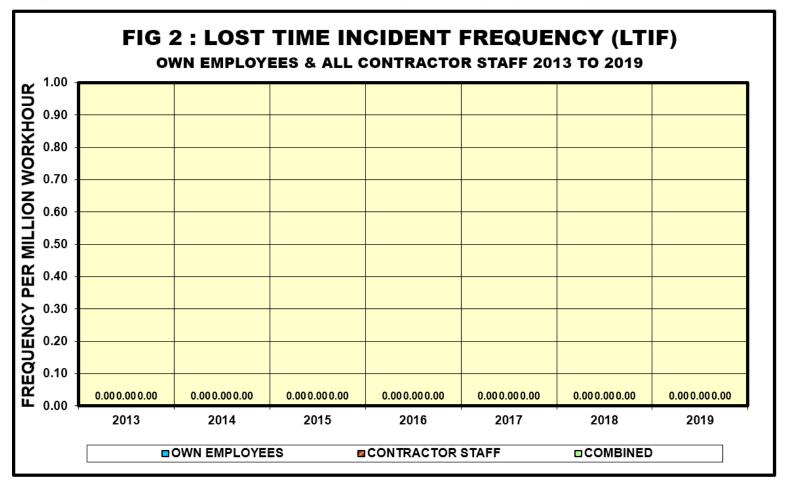


(a) Employees and Contractors Worked Hours in 2019





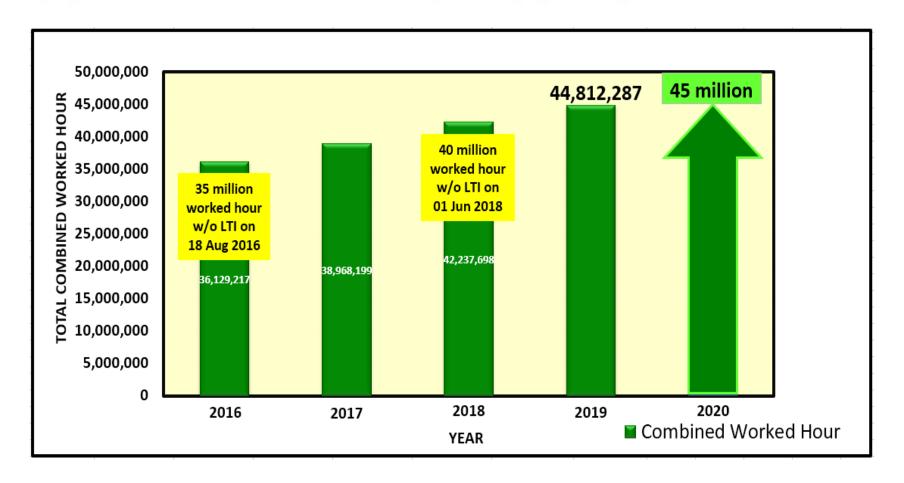
(b) Lost Time Incident Frequency [LTIF]





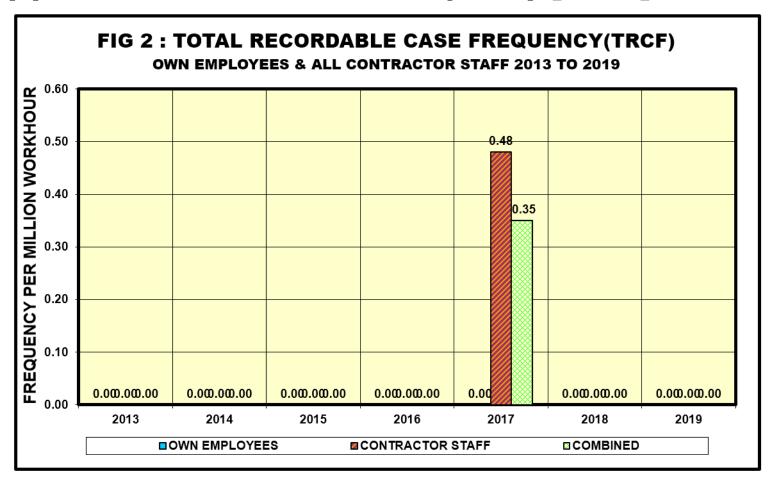


(b) Lost Time Incident Frequency [LTIF]



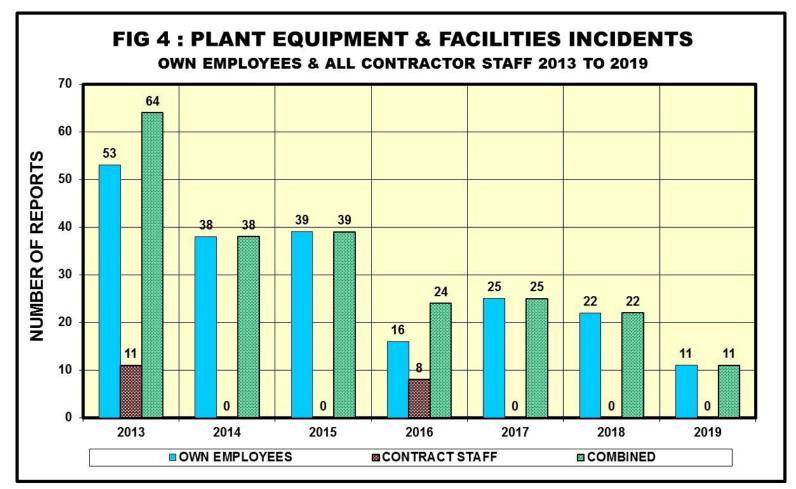


(c) Total Recordable Case Frequency [TRCF]



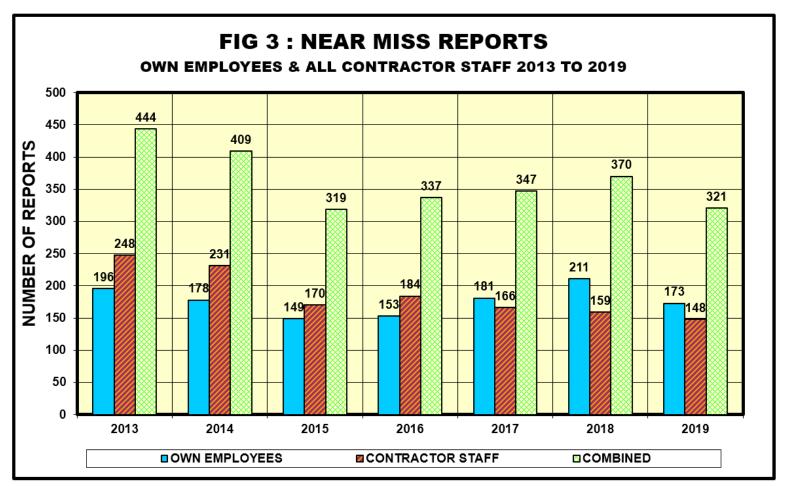


(d) Plant Equipment / Facilities Incidents [PEF]



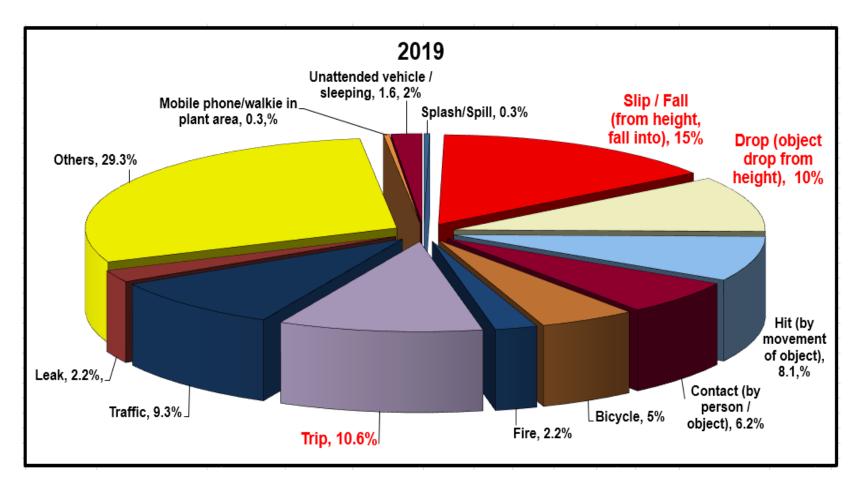


(e) Near Miss Reports [NMR]





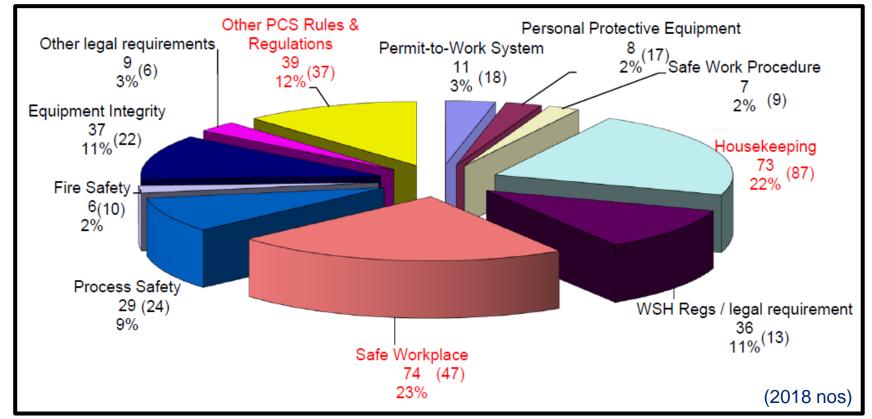
(e) Breakdown of Near Miss Reports [NMR]





(f) Nature of Observations / Violation / Breaches — 2019 (HSEO site visit)

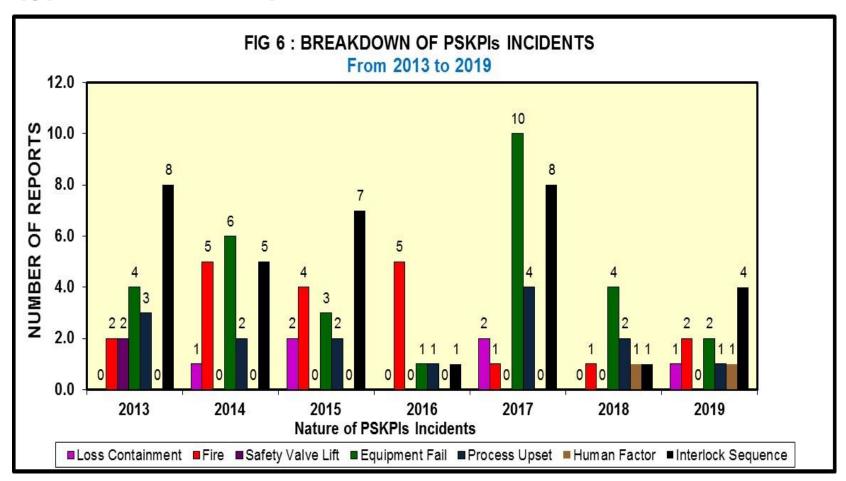
Total 329 observations (2018: 284)





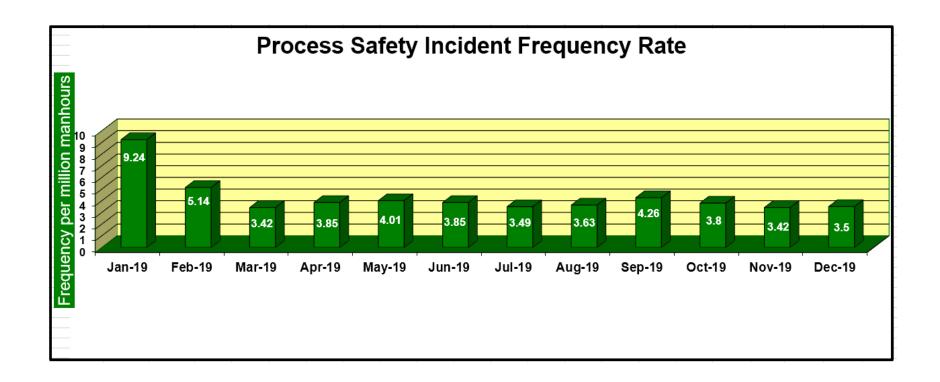


(g) Process Safety Performance





(g) Process Safety Performance





(h) Environmental Performance

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





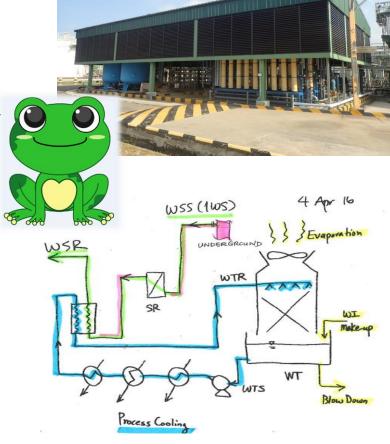




(h) Environmental Performance

➤ January 2019: demonstration plant of Treated Wastewater Recovery Plant for Process Use recovers 500 m3 water daily

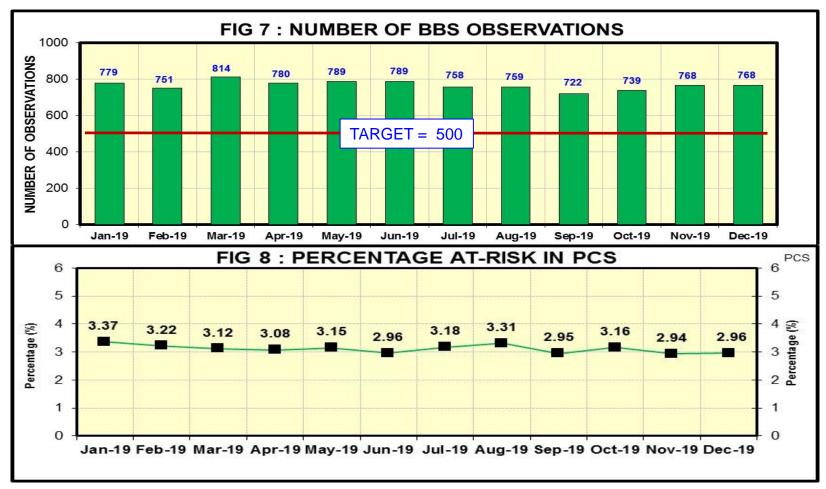
August 2019: existing
 Cooling Tower Water
 System via Indirect
 Supplemental Seawater
 Cooling conserves 700 m3
 freshwater per day





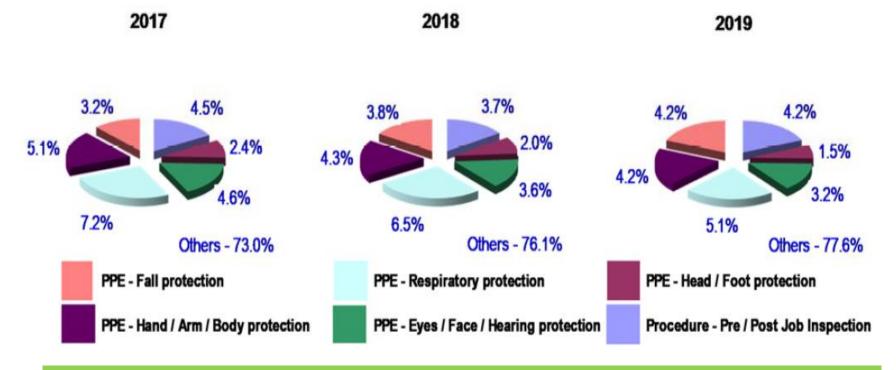
- a. BBS Observations
- b. Nature Of Behaviour Based Safety Observation
- c. Monthly Exemplary Safe Staff / Worker Role Model
- d. BBS 15 years anniversary
- e. New Critical Behaviour Inventory (CBI) on Health and Wellness

(a) BBS Observations



(b) Nature Of Behaviour Based Safety Observation

Critical Behaviour Inventory



Others: Body Position, Body Use & Ergonomics, Tools & Equipment, Procedure, Environment

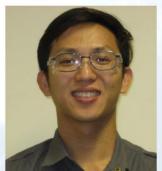


(c) Monthly Exemplary Safe Staff / Worker Role Models

Carried out monthly since <u>Jun 2015</u>



BBS EXEMPLARY SAFE STAFF / WORKER ROLE MODEL



MR CHENG YIZHANG OLEFIN I SENIOR TECHNICIAN

I must not be complacent at work due to health & fire hazard in our workplace. When carrying out isolation & purging of Z-233A/B for strainer cleaning, I ensure equipment is thoroughly purged & depressurised before handover to Maintenance. (CBI 4.4 – Pre-Post Job Inspection)

JUN 2019
Congratulations to
our Role Models for
their positive
behaviour and safe
work attitude
demonstrated!

Keep up the good work!







MR KARUTHASAMY VADIVEL HAI LECK ENGINEERING PTE LTD SCAFFOLDER

I know well that falling from height is the number one hazard in the workplace, so before I start work, I constantly check & ensure my fall protection PPE (Body Harness & dual lanyard) is always in good condition before I use them. (CBI 5.5 – Fall Protection)

(c) Monthly Exemplary Safe Staff / Worker Role Models

Carried out monthly since Jun 2015

Jan 2019



MR SOO WING TEEN **OLEFIN-II** SANKYU SINGAPORE PTE LTD LEAD TECHNICIAN

MR HOON KIM HUAT MAINTENANCE INSPECTION SUPERVISOR

Feb 2019



MR ARMANDO ANCHETA SINGAPORE TAKADA IND. PTE LTD SKILLED WORKER

Mar 2019



TECHNICIAN



VINDES ENG PTE LIMITED SKILLED WORKER

Apr 2019



MR TAN KAY CHUAN FIRE & SECURITY SENIOR LEADING FIREMAN



SKILLED WORKER (ROT)

MR HTAY LWIN AKT SINGAPORE PTE LIMITED SKILLED WORKER

May 2019



MR IOHNNY LIM **HUMAN RESOURCE & ADMIN** SENIOR ADMIN ASSISTANT



HOLCAM CONSTRUCTION PTE LTD LANDSCAPING & GRASS CUTTING WORKER

Jun 2019



MR CHENG YIZHANG **OLEFINI** SENIOR TECHNICIAN



MR KARUTHASAMY VADIVEL HAI LECK ENGINEERING PTE LTD SCAFFOLDER

(c) Monthly Exemplary Safe Staff / Worker Role Models

• Carried out monthly since Jun 2015

Jul 2019



MR SIE YEU KEUT OLEFIN II LEAD TECHNICIAN



MR ARUMUGAM RAMACHANDRAN TECHGEMS ENGINEERING PTE LTD GENERAL WORKER

Aug 2019



MR AWYONG KIT HOONG MAINTENANCE SUPERVISOR



MR DAS RAMPRASAD FOSTER ASIA PACIFIC PTE LTD SITE SUPERVISOR

Sep 2019



MS CATHERINE TAN QUALITY CONTROL LEAD TECHNICIAN



MR TIMILLAR RAYMUND PARRENO KURIHARA KOGYO CO LTD ELECTRICIAN

Oct 2019



MR SHUKRI BIN ALI ALRAGI BAFADAL FIRE AND SECURITY SENIOR LEADING FIREMAN



MR G. MURUGANANTHAM TRIDENT HYDRO-JETTING PTE LTD HYDRO-JETTER

Nov 2019



MR P. RAMASAMY PURCHASING WAREHOUSE SENIOR ADMIN ASSISTANT



MR NADESAN DAVID
INSULATION WORKER
MEISEI INTERNATIONAL PTE LTD

Dec 2019



MR MOHD NOOR BIN SAID OLEFIN-I LEAD TECHNICIAN



MR AUNG MYO HEIN SHOWA DENKI (S) CO. PTE LTD FOREMAN ELECTRICIAN

(d) BBS 15 years anniversary



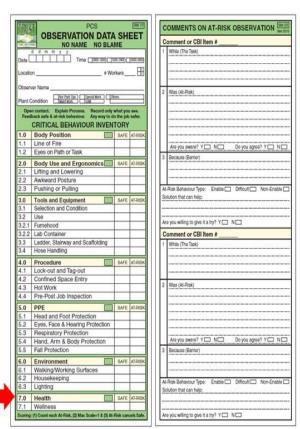


(d) New Critical Behaviour Inventory (CBI) on Health and Wellness

CBI for 7-Health

Wellness

- Healthy body and seeking care when needed. Physical health is attained through exercise, eating well, getting enough sleep and paying attention to the signs of illness.
 - Visible Signs
 - Observable Symptoms
 - That becomes a Risk





(a) Combined PCS Employees / Contractors Set Target (CPST)

- Award is given when PCS employees and contractors meet the <u>Total Recordable Case 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 2019
- Contractor workers received vouchers totalling \$\frac{\$\\$5\\$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 achievement





Contractor Companies awarded CSST Bonus Award in 2019

	ASAHI KOKUSAI TECHNEION SINGAPORE PTE. LTD.	FOSTER ASIA PACIFIC PTE LTD	KYC SCAFFOLDING PTE. LTD.	SANKYU (SINGAPORE) PTE LTD	VINDES ENGINEERING PTE LTD	TRIDENT HYDRO JETTING PTE LTD	TECHGEMS ENGINEERING & CONSTRUCTION PRIVATE LIMITED
Award	GOLD	GOLD	GOLD	GOLD	GOLD	GOLD	SILVER
Category	1	1	1	1	1	2	2
Years worked w/o LTI	27	15	15	15	15	15	3
Cheque amount	S\$1000	S\$1000	S\$1000	S\$1000	S\$1000	S\$500	S\$250

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





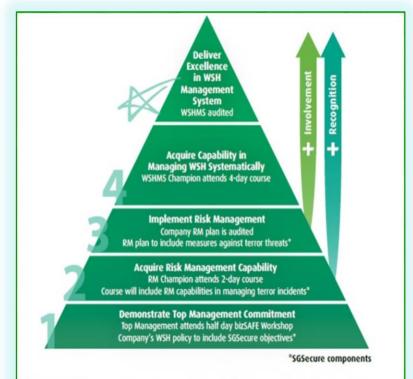
Long Service Award To Contractors HSE Personnel

	Company	Name	Years Service as at 31 Dec 2019	Voucher Amount
1	Vindes Engineering Pte Ltd	James Sum Kin Fock	10	S\$300
2	Vindes Engineering Pte Ltd	Lawrence Toh Huang Yan	10	S\$300
3	Yokogawa Engineering Asia Pte Ltd	Thein Lwin	7	S\$200
4	A+ Engineering Pte. Ltd.	Muhammad Shafiq	5	S\$200
5	Hai Leck Engineering (Private) Limited	Saminathan Arunagiri	5	S\$200
6	Sankyu (Singapore) Pte Ltd	Subramanian Sivanantham	5	S\$200

4. WSHC bizsAFE Programme



- PCS was one of the pioneering companies to become bizSAFE Mentor since 2011
- Mentors work closely with the WSH Council in advancing the WSH agenda in Singapore
- 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 three of them are bizSAFE Partners



The bizSAFE programme consists of five levels of increasing requirements and commitment. Upon achieving all five levels, the company will be awarded the bizSAFE STAR status. Companies can proudly display the bizSAFE accreditation logo on their business collaterals as a reflection of their commitment to safety.











Maintenance Contractors

	Maintenance Contractors					
	Company	BizSAFE Level	Expiry Date			
1.	Sankyu (Singapore) Pte Ltd	Partner	27 Jun 2021			
2.	Hai Leck Engineering (Private) Limited	Partner	24 July 2020			
3.	Kurihara Kogyo Co., Ltd.	Partner	17 May 2021			
4.	Foster Asia Pacific Pte Ltd	Level Star	11 Mar 2021			
5.	Singapore Takada Industries Private Limited	Level Star	21 Feb 2020			
6.	KYC Scaffolding Pte. Ltd.	Level Star	6 Dec 2022			
7.	VinDes Engineering Pte Ltd	Level Star	10 May 2022			
8.	Asahi Kokusai <u>Techneion</u> Singapore Pte. Ltd.	Level Star	12 Sep 2020			
9.	Yokogawa Engineering Asia Pte Ltd	Level Star	16 Jun 2020			
10.	Holcam Construction Pte Ltd	Level Star	7 Sep 2022			
11.	Showa Denki (Singapore) Co. Pte. Ltd.	Level Star	11 Mar 2021			
12.	Meisei International Private Limited	Level Star	4 Aug 2022			
13.	PSM Aircon & Engineering Pte. Ltd.	Level Star	7 Nov 2021			
14.	Trident Hydro Jetting Pte Ltd	Level Star	15 Mar 2022			
15.	Setsco Services Pte Ltd	Level Star	11 Mar 2021			
16.	Prowess Engineering Design and Services	Level Star	20 Jun 2022			
17.	TechGems Engineering & Construction Pte. Ltd.	Level Star	27 May 2020			
18.	A+ Engineering Pte. Ltd.	Level Star	6 Feb 2021			

Service Contractors

	Company	Function-in- Charge	BizSAFE Level	Expiry Date		
1.	Veolia ES Singapore Industrial Pte. Ltd.	HRA	Level Star	19 Apr 2022		
2.	Loh Kim Chay Marine Service	Olefin-l	Level Star	8 Aug 2021		
3.	Archiplast Engrg Services & Modelling	Engineering	Level Star	10 Feb 2020		
4.	Ikari Services Pte Ltd	HRA	Level Star	15 Jan 2020		
5.	The Wok People Pte. Ltd.	HRA	Level Star	20 Mar 2022		
6.	AETOS Security Management Pte. Ltd.	F&S	Level Star	10 Mar 2020		
7.	ComfortDelGro Bus Pte. Ltd.	HRA	Level Star	11 Mar 2021		
8.	Vancam Construction Pte. Ltd.	HRA	Level Star	11 Mar 2021		

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

Certification



Annual PCS-Contractors





(a) Workplace Safety & Health Performance (Gold) Award

PCS MD Akira Yonemura-san received the WSH Performance (Gold) Award conferred by WSH Council at the gala dinner held on 30 Jul 2019



Recipients Lauded For Exemplifying WSH 2028 Spirit



Annual PCS-Contractors

HSE meeting 2020







(a) Workplace Safety & Health Performance (Gold) Award

PCS believes that it is important to treat its employees and contractors with the same level of health and safety. Respecting the contractors as equal – "One PCS, One Team"











(b) Responsible Care®

- Excellence Award in all six RC Codes
- SCIC Responsible Care[®] Leadership Award (5th time)







(c) Energy Efficiency National Partnership Awards

Best Practices category - 3 October 2019







VISION





(d) 5TH CCPS Global Summit on Process Safety

held at the Resorts World Sentosa from 22 to 23 October 2019.



Co-hosted by the Center for Chemical Process Safety (CCPS) and the Singapore Chemical Industry Council (SCIC), Singapore's inaugural hosting of the 5th CCPS Global Summit on Process Safety (GSPS)



CCPS-CSB-SCIC(PCS) collaboration. GM (P) with (from L to R): Ms Louisa Nara (CCPS Global Technical Director), Dr Kristen Kulinowski (CSB Interim Executive Authority), Mr Shakeel Kadri (CCPS Executive Director and CEO)





(d) 5TH CCPS Global Summit on Process Safety







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AIChE - American Institute of Chemical En... 31,610 followers 1d · ⊗ Anyone

CCPS Executive Director Shakeel Kadri (left) with Wim Roels, SCIC Chair and CEO of Borouge (right) at the 5th Global Summit on Process Safety #Singapore #CCPS #processsafety



AIChE - American Institute of Chemical En... 31.610 followers 1d · @ Anyone

Zagy Mohammed, Minister of State for Manpower and National Development of Singapore, speaking at the the 5th CCPS Global Summit on Process Safety #CCPS **#ProcessSafety**





Further across the globe....AIChE's Linkedin



Annual PCS-Contractors





(d) 5TH CCPS Global Summit on Process Safety

held at the Resorts World Sentosa from 22 to 23 October 2019







(e) Jurong Island Vision Zero Learning Journey to PCS 7 March 2019



PCS schedules regular meet up with our contractors' Senior Management and their workers, as part of our communication, engagement and feedback programme.

very quarter, contractors' Site Management and workers (on roster) join a dialogue session, a platform where HSE and wellness programmes are shared and a forum for contractors to air their views as well as give suggestions towards a healthy and safe workplace.

PCS is glad to be one of the Vision Zero Champions to proactively advocate health and safety at work on Jurong Island.



PCS MD and GM(Plant) addressing the participants



The learning journey was jointly organised with the Workplace Safety and Health Council, together with support from the Singapore Chemical Industry Council Limited (SCIC).

In opening the Dialogue, PCS Managing Director, Mr. Akira Yonemura, shared that the Dialogue is an ideal avenue for him, PCS managers, as well as contractors' management to obtain feedback and feel the ground, aside from regular walkabouts in the plant.

He mentioned that when WSH Council approached PCS to open one of our events to Jurong Island stakeholders, we chanced upon this Dialogue to share our belief and our programmes, which are in alignment with the Vision Zero mindset. He further stressed that, in PCS, contractors are regarded not just as service providers, but as partners who are accorded the same health, safety and security provisions as our employees.



PCS General Manager (Plant), Er. Lucas Ng HK, as the chairperson of the Jurong Island Vision Zero Working Group, in delivering his welcome address, mentioned that the Group has plans to organise events like forums and dialogue sessions with management and workers, as more companies pledged to the Cluster. An example is PCS' Dialogue sessions to showcase to companies that do not or have not created an engagement platform with the contractors' management and workers to embark on such a programme.

He reiterated that PCS has a strong cultivated health and safety culture and unique teamwork culture, and has always been an advocate of open sharing.





(e) Jurong Island Vision Zero **Learning Journey to PCS 7 March 2019**



Guests from Contractors, the Workplace Safety and Health Council [WSHC] and Ministry of Manpower [MOM] registering for the event.

Following the Jurong Island Vision Zero Cluster launch last November, we took the opportunity to encourage contractor companies to come on board and pledge their commitment to the Vision Zero movement, at our annual gathering with contractors' Senior Management in January.

In keeping with the momentum, the recent 1st Quarter 2019 PCS Contractors Dialogue event on 7 March, included a "Learning Journey" (WSH Council's terminology) on Contractor Management and Behaviour Based Safety, for companies that have pledged to this Cluster.





(e) Jurong Island Vision Zero Learning Journey to PCS 7 March 2019



Not to be left out, the Singapore Chemical Industry Council (SCIC) Ms. Wendy Chai shared on the Responsible Care® programme in Singapore. The Vice President of Association of Process Industry (ASPRI) Mr. Francis Tay, who is also a member of the Jurong Island Vision Zero Working Group, supported the event.

The day ended with a small reception where guests were treated to "finger food" and to catch up with fellow Jurong Islanders.



WSH Council have since published an article on the first Jurong Island Vision Zero learning journey, at PCS' quarterly contractors dialogue, with more than 50 participants from pledgee companies in attendance. PCS, as well as WSH Council, received feedback that the experience was eye-opening, and that the participants are looking forward to attending more of such learning journeys in future.







(e) Jurong Island Vision Zero

Learning Journey to PCS 7 March 2019



The Jurong Island Vision Zero (VZ) Cluster was formed in November 2018. It is the first VZ Cluster in Singapore, comprising more than 40 companies on Jurong Island who have collectively

pledged towards VZ — to embrace the mindset that all workplace injury and ill-health can be prevented.

50 participants from the pledged companies visited PCS and were given the opportunity to sit in on one of the organisation's regular dialogue sessions with PCS' contractors and witness, first-hand, the robust working relationship between PCS and their contractors





6. Target for 2020





Safety Performance Journey:

45 million Hours Worked without LTI and beyond ...







Speak Out for Safety (SOS)

Behavioural Based Safety (BBS)

STop And Report (STAR)



Review of HSE Performance for 2019



THANK YOU









