



Petrochemical Corporation of Singapore (Private) Limited



Annual PCS-Contractors HSE Meeting 2023

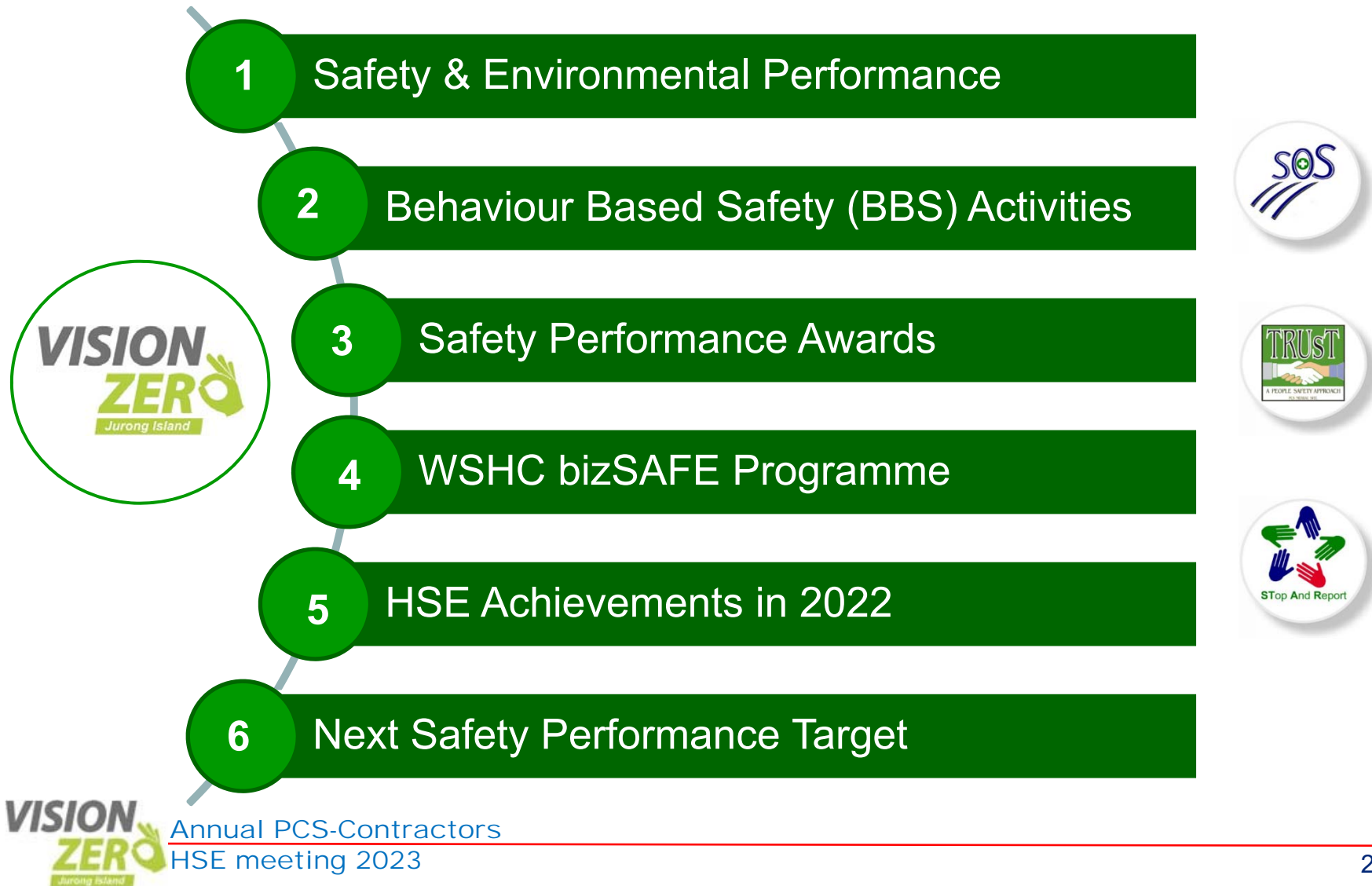
Review of HSE Performance for 2022

Ms Tan Peck Luan
Senior HSE Officer

26 January 2023



Review of HSE Performance



Review of HSE Performance



1

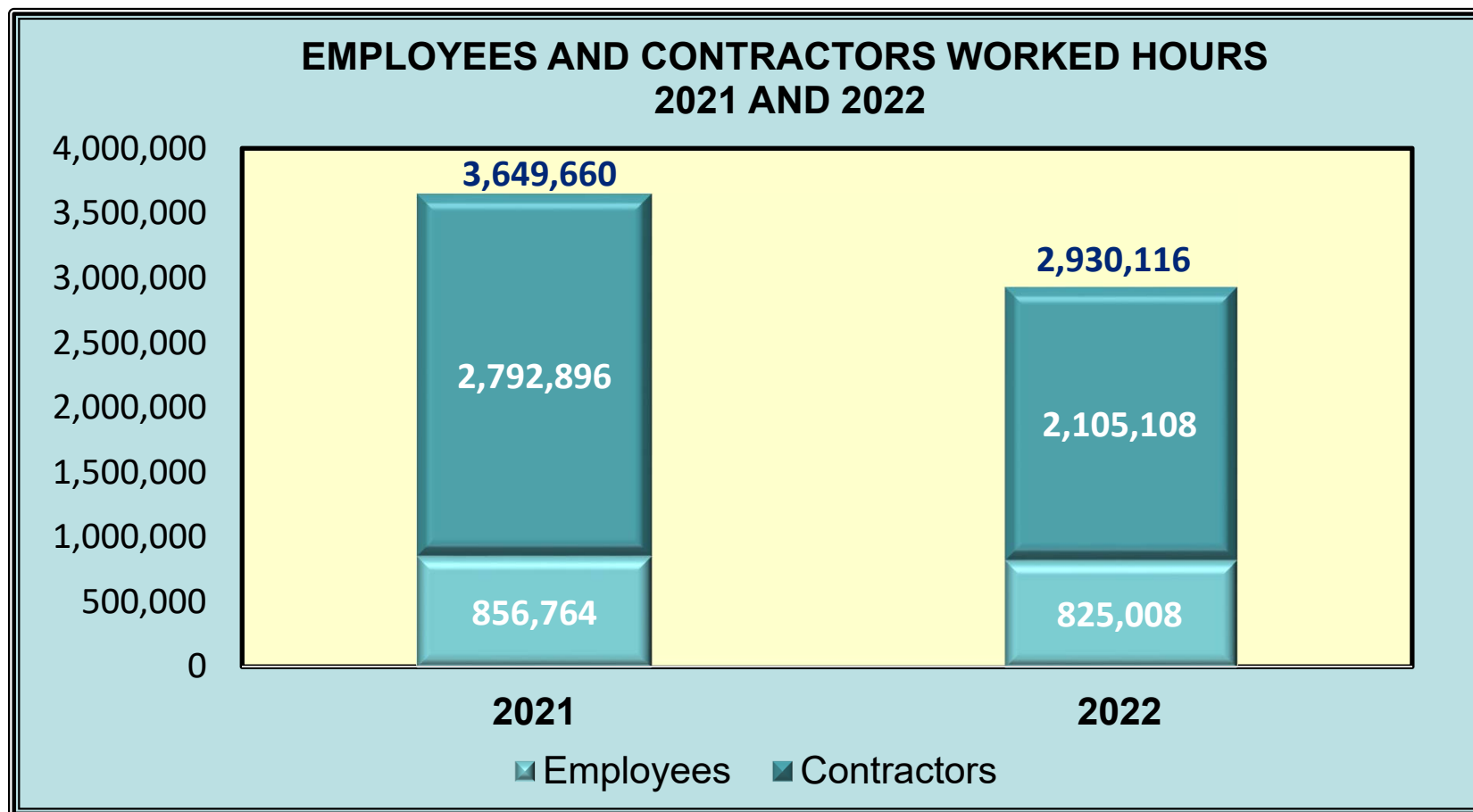
Safety &
Environmental
Performance



Annual PCS-Contractors
HSE meeting 2023

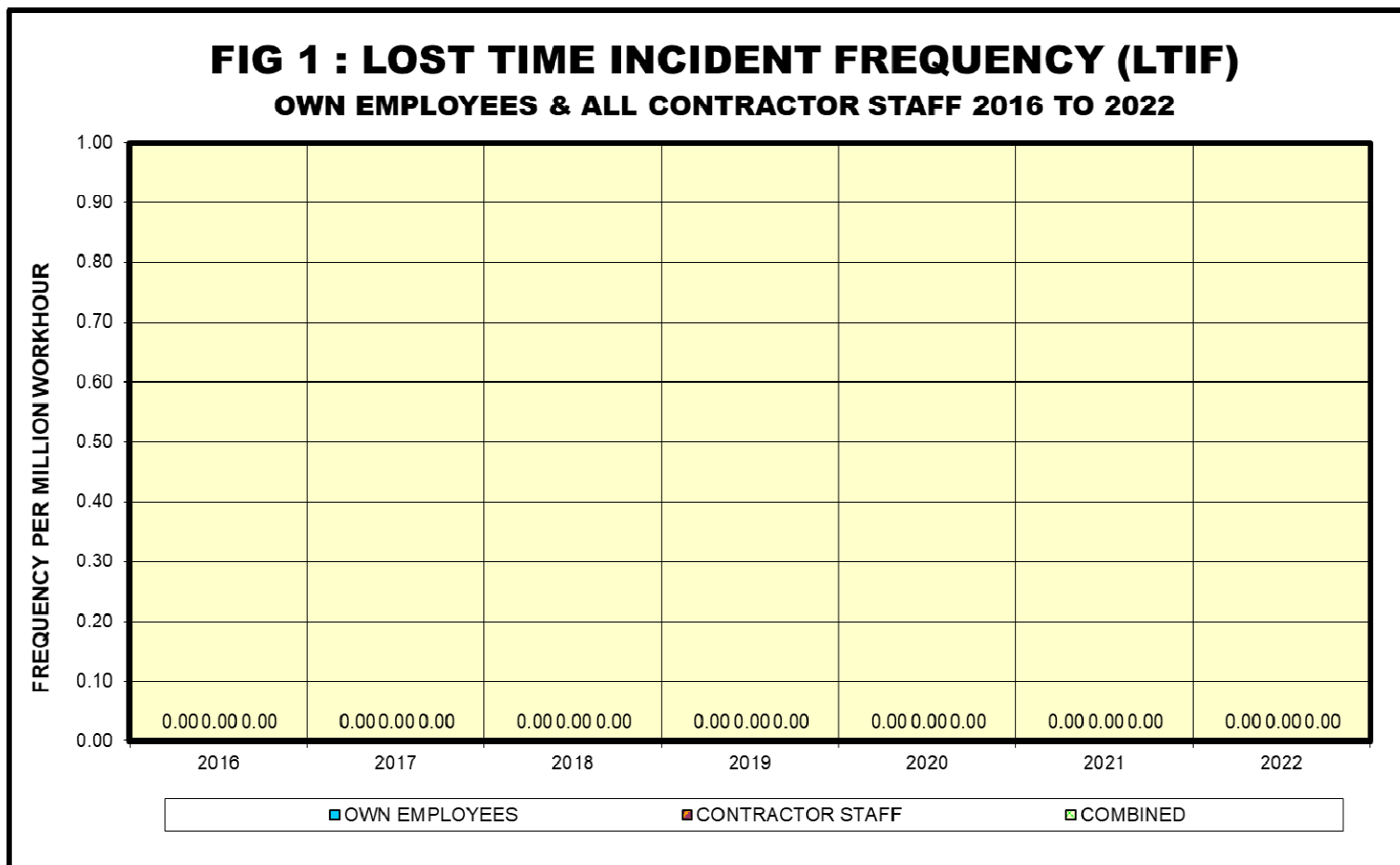
1. Safety & Environmental Performance

(a) Employees and Contractors Worked Hours in 2022



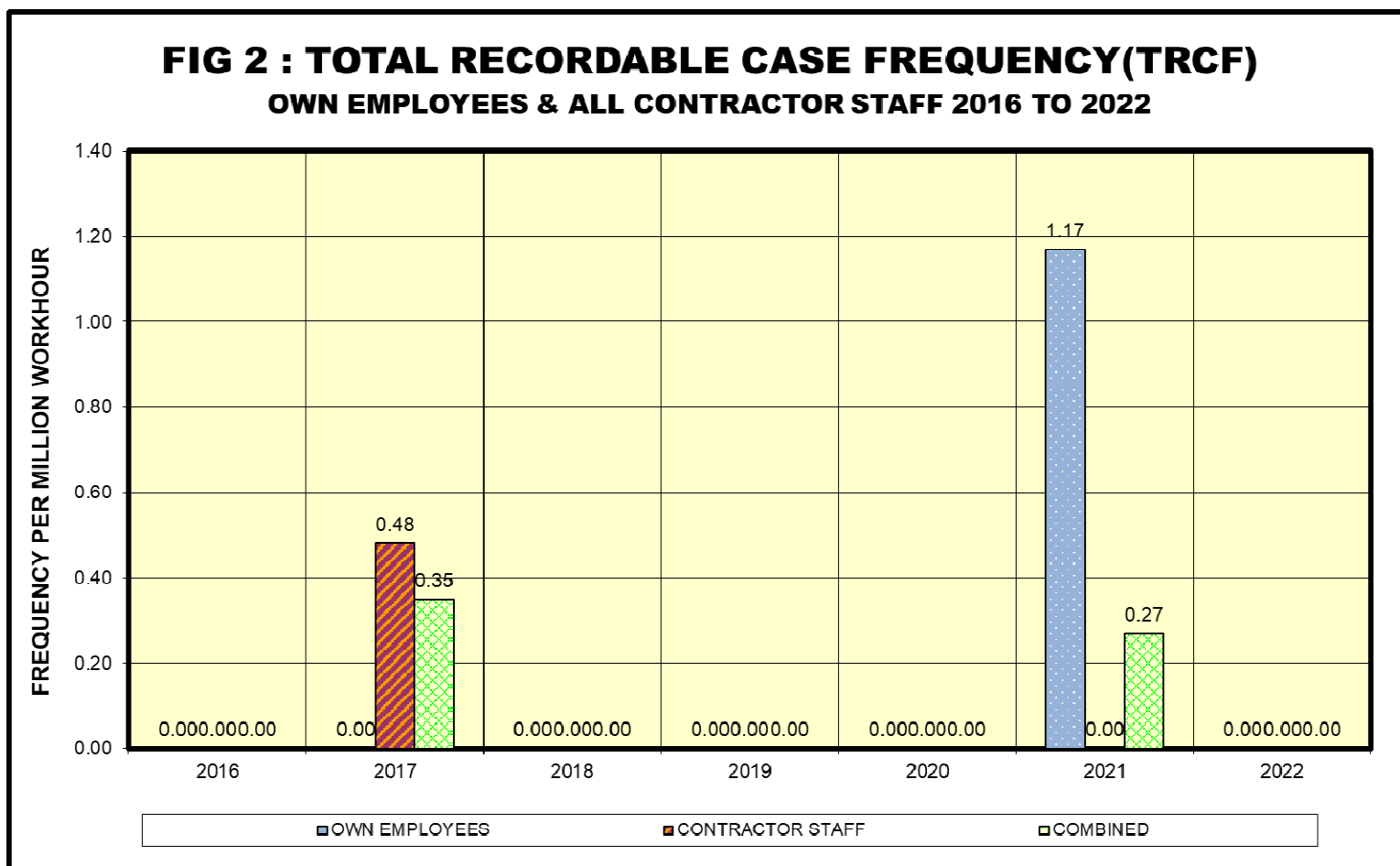
1. Safety & Environmental Performance

(b) Lost Time Incident Frequency [LTIF]



1. Safety & Environmental Performance

(c) Total Recordable Case Frequency [TRCF]



1. Safety & Environmental Performance

(d) First Aid Case

Date : 14 Oct 2022
Venue : QC Laboratory
Nature : Cut on fingers by glassware while trying to salvage a broken glass funnel



1. Safety & Environmental Performance

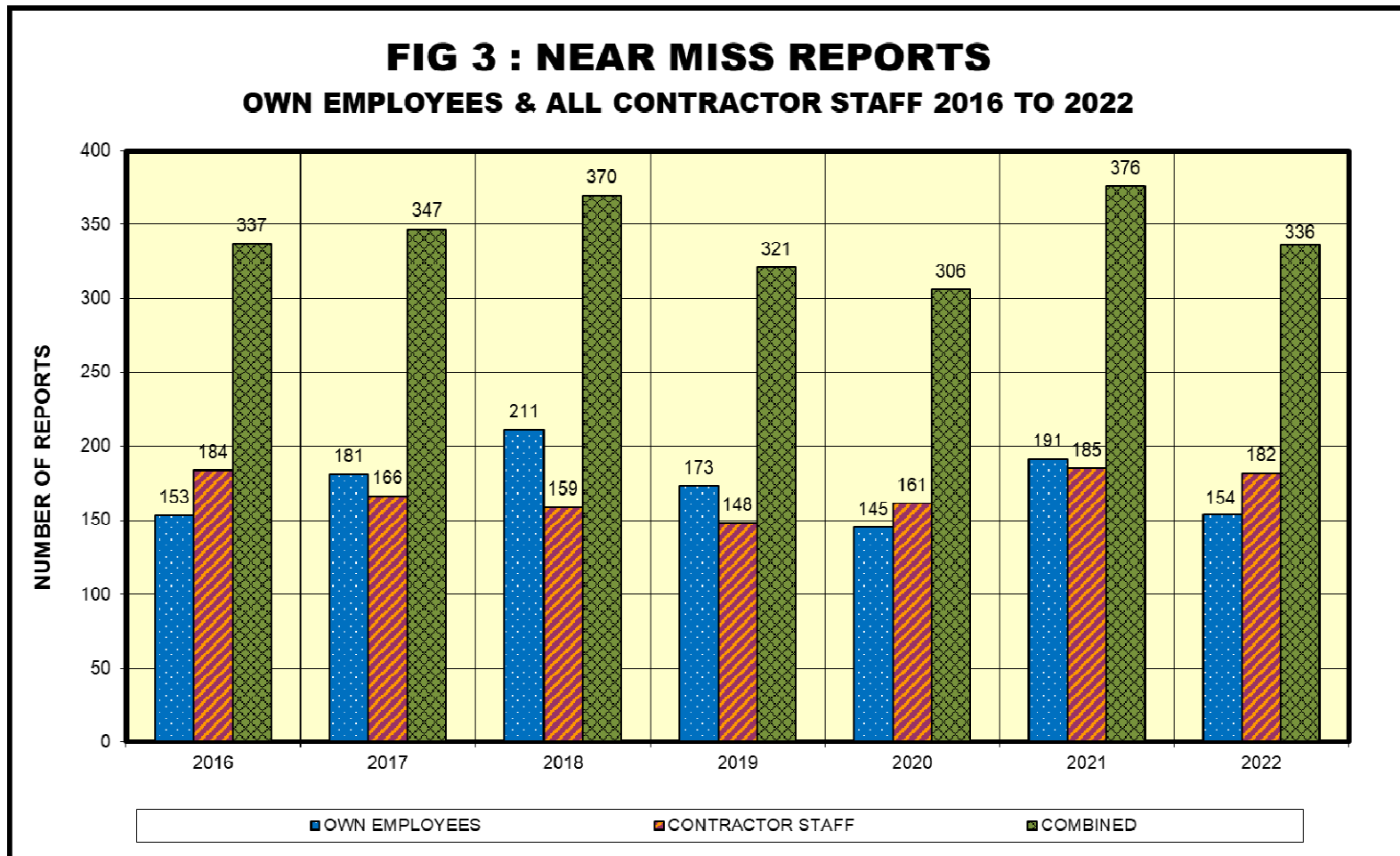
(d) First Aid Case

Lessons learnt:

- Inspect all equipment to be free of defects and in good operable condition before use
- Dispose chipped / broken glassware immediately
- Adhere to Safe Work Procedures
- Exercise vigilance when handling glassware
- Reinforce safe glassware handling and Pre-Post Job inspection

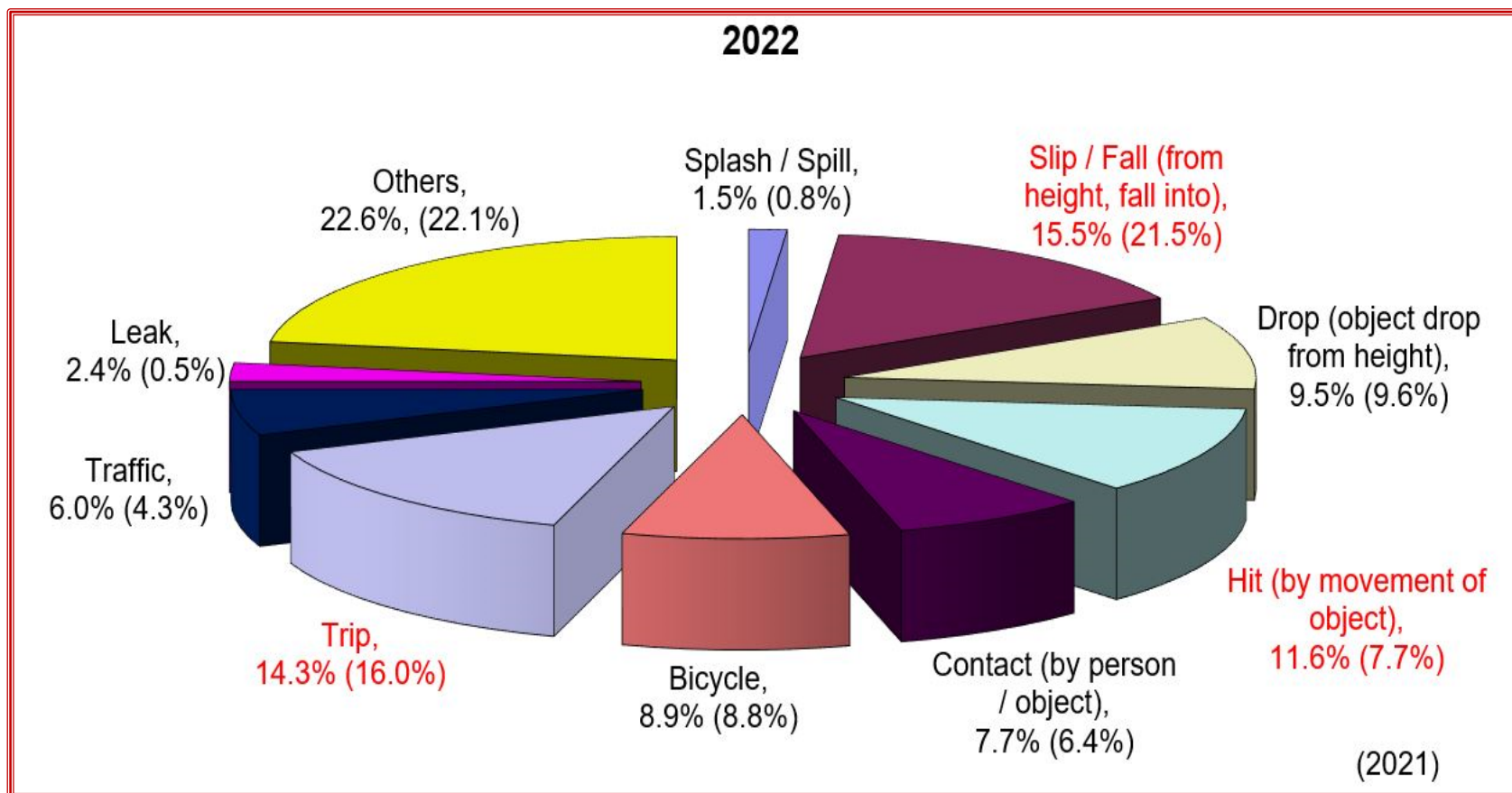
1. Safety & Environmental Performance

(e) Near Miss Incidents



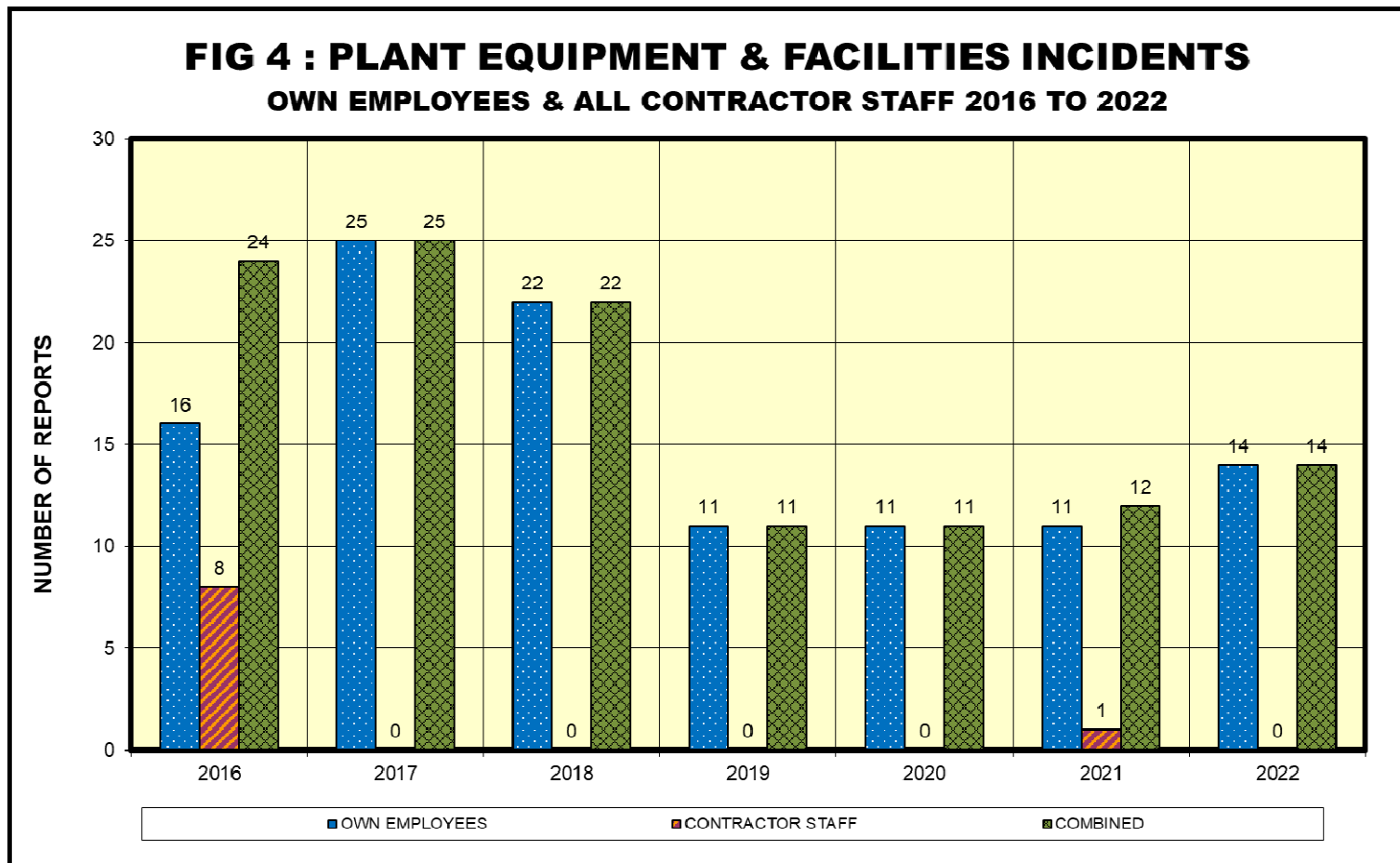
1. Safety & Environmental Performance

(e) Nature of Near Miss Incidents



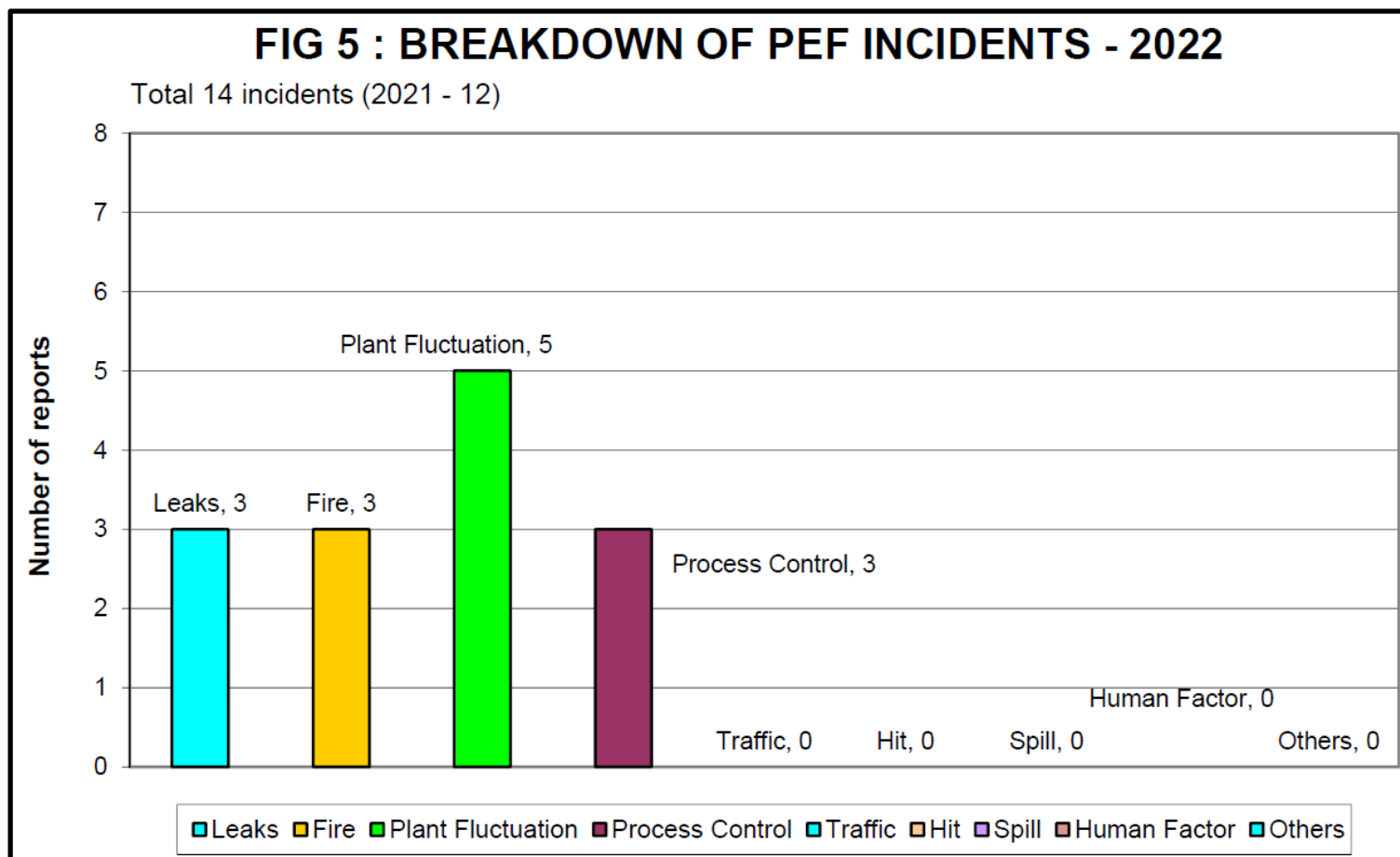
1. Safety & Environmental Performance

(f) Plant Equipment / Facilities Incidents [PEF]



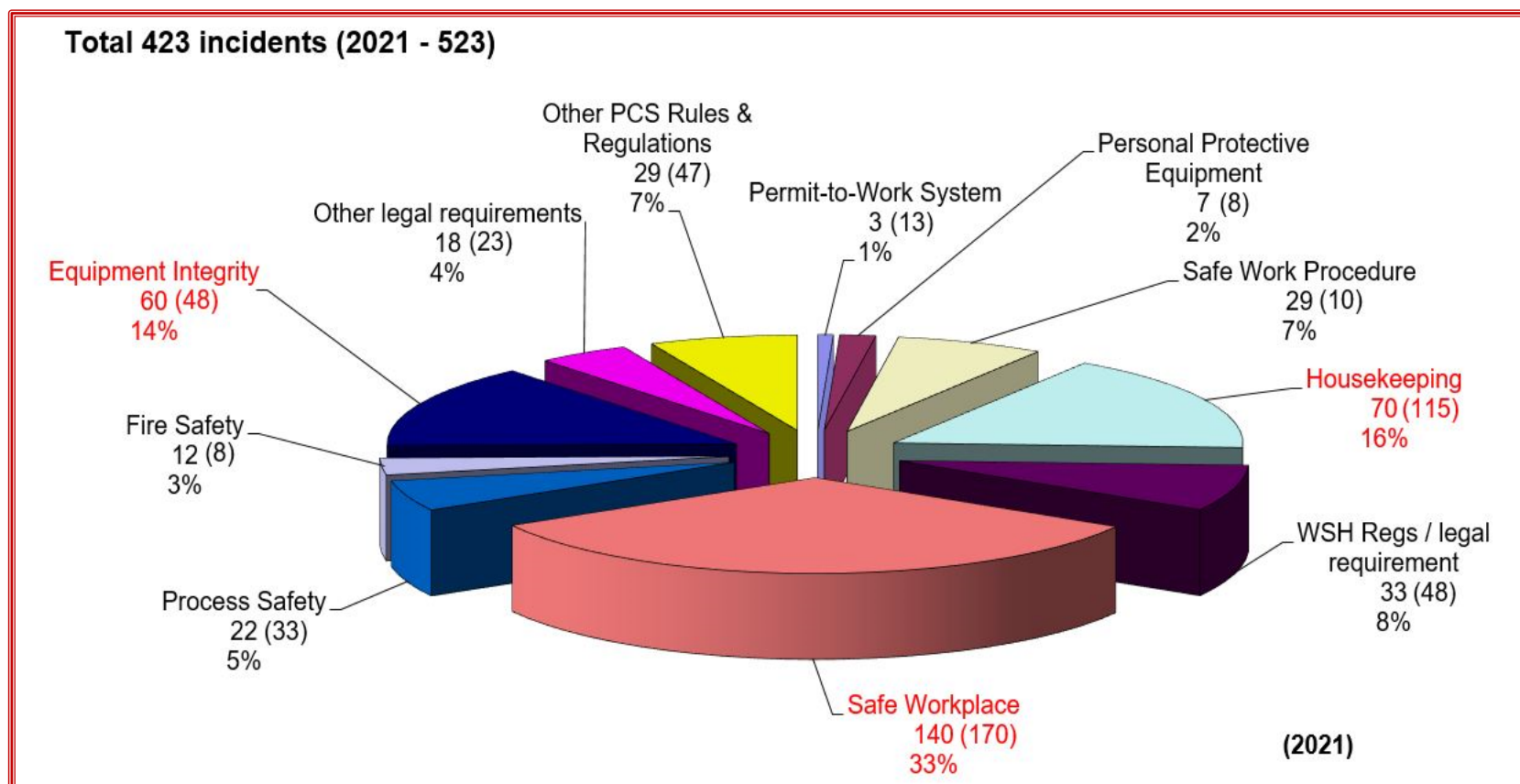
1. Safety & Environmental Performance

(f) Breakdown of PEF incidents



1. Safety & Environmental Performance

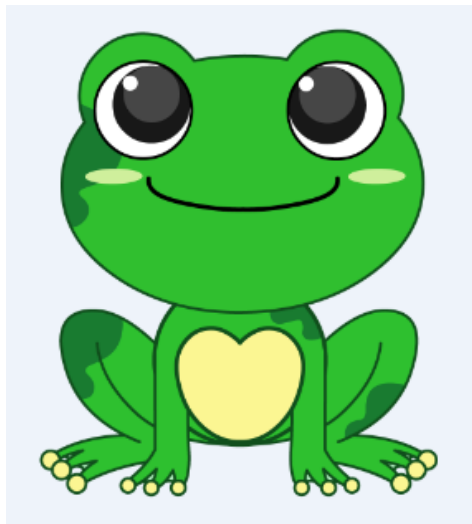
(g) Nature of Observations/Violation/Breaches - 2022 (HSEO site visit)



1. Safety & Environmental Performance

(h) Environmental Performance

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



Review of HSE Performance



2

Behaviour Based
Safety (BBS)
Activities



Annual PCS-Contractors
HSE meeting 2023

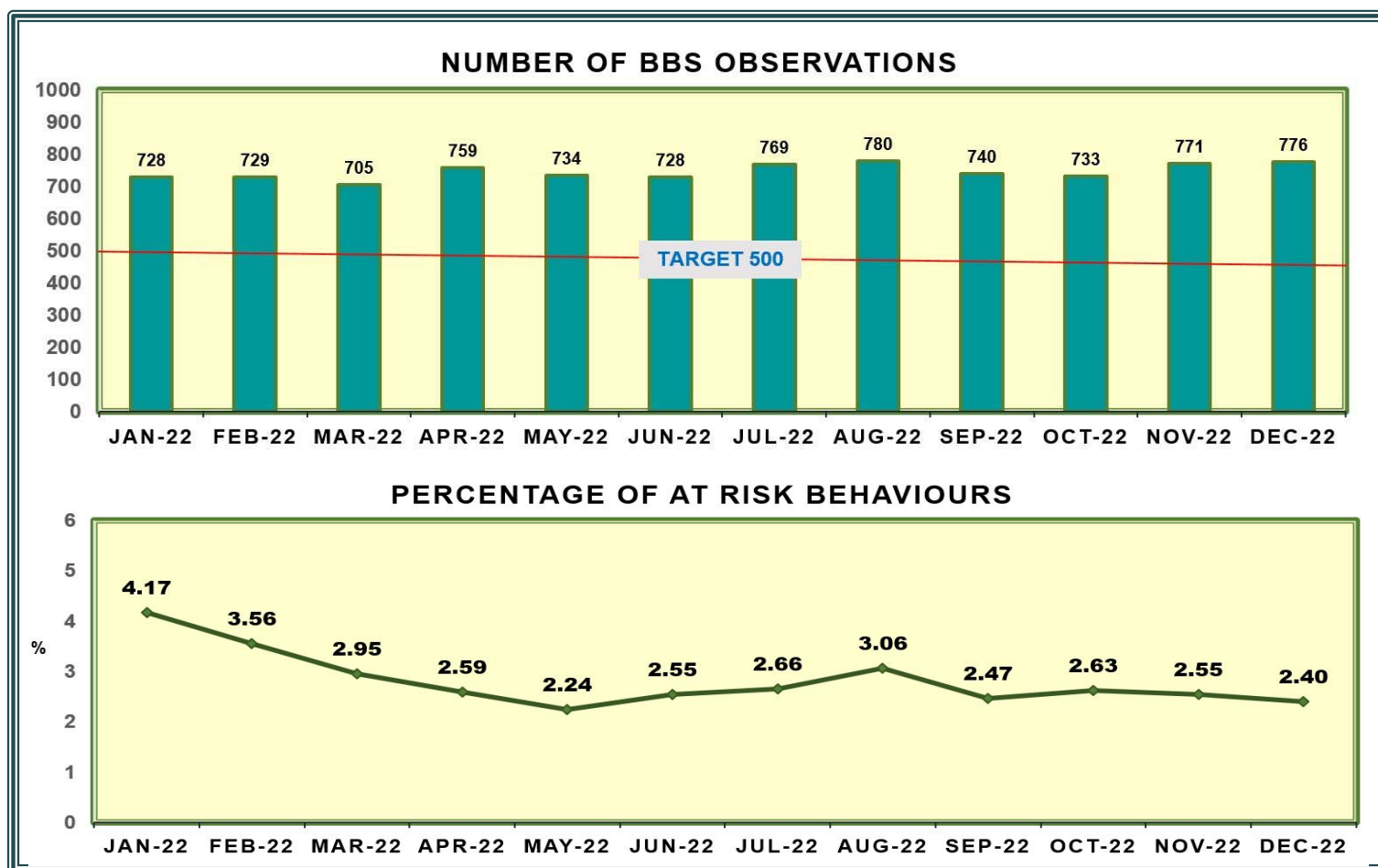
2. Behaviour Based Safety (BBS) Activities



- a. BBS Observations
- b. Nature Of Behaviour Based Safety Observation
- c. Monthly Exemplary Safe Staff / Worker Role Model
- d. BBS TRUsT Champion Award

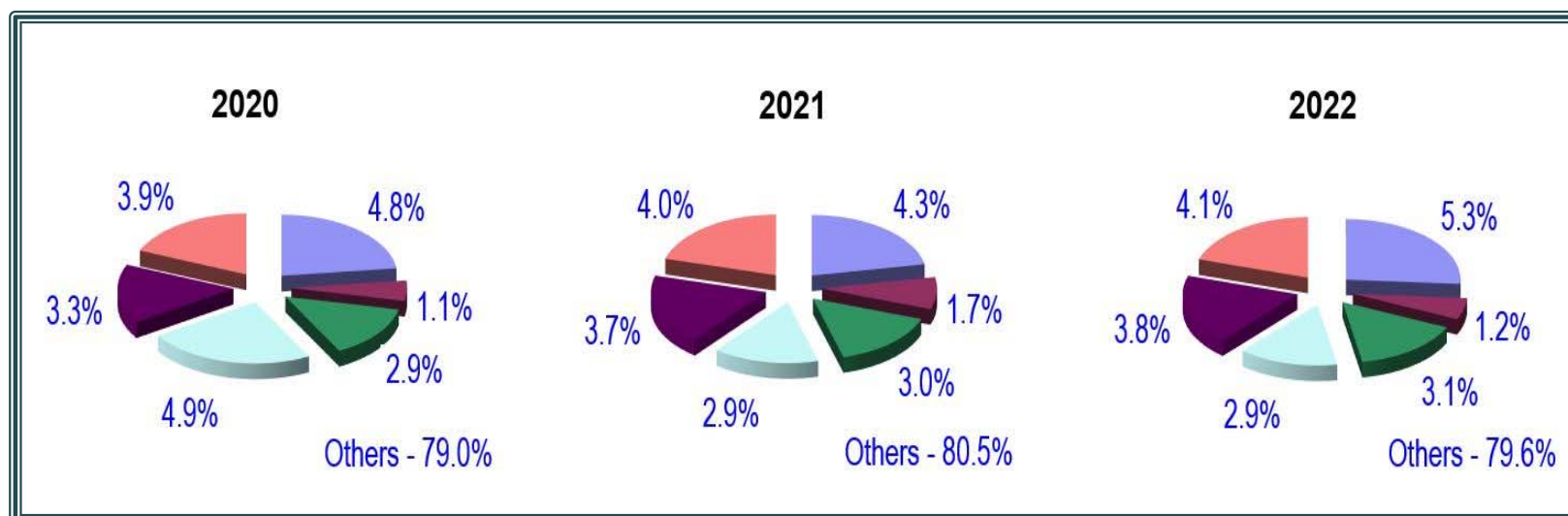
2. Behaviour Based Safety (BBS) Activities

(a) BBS Observations



2. Behaviour Based Safety (BBS) Activities

(b) Nature Of Behaviour Based Safety Observation




2. Behaviour Based Safety (BBS) Activities

(c) Monthly Exemplary Safe Staff / Worker Role Models

- ☐ Started since June 2015
- ☐ Each month, a PCS staff and a contractor worker will be 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

2. Behaviour Based Safety (BBS) Activities

(c) Monthly Exemplary Safe Staff / Worker Role Models




BBS EXEMPLARY SAFE STAFF / WORKER ROLE MODEL

DECEMBER 2022

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


Keep up the good
work!



MR YEO WEI HOW
TECHNICIAN
OLEFIN I

When I enter the liquid berth for logging / ship berthing, I will put on a life jacket and ensure that I am not standing in the direction of the tightened mooring ropes in case of ropes snapped.



[CBI 1.1: Line of Fire & CBI 5.5: Fall Protection]



MR JOGRAJ SINGH
INSULATOR SUPERVISOR
FOSTER ASIA PACIFIC PTE LTD













As an insulation worker, it is my responsibility to wear leather gloves to prevent possible hand injuries. I will also ensure my leather gloves are in good condition for optimised protection.

[CBI 5.4: Hand, Arm & Body Protection]

2. Behaviour Based Safety (BBS) Activities

(c) Monthly Exemplary Safe Staff / Worker Role Models

JANUARY		FEBRUARY		MARCH	
					
MR ZAIN BIN RAHMAT LEAD TECHNICIAN OLEFIN-II	MR AUNG MYO HEIN ELECTRICIAN SHOWA DENKI (SINGAPORE) CO. PTE. LTD.	MR LIM YUE JOO CIVIL SUPERVISOR MAINTENANCE	MR VR SENTHILKUMAR ANALYSER TECHNICIAN YOKOGAWA ENGINEERING ASIA PTE LTD	MR LEAN CHIN HEE LEAD TECHNICIAN QUALITY CONTROL	MR GADAYOS DONDON REYES CIVIL FOREMAN A+ ENGINEERING PTE. LTD
APRIL		MAY		JUNE	
					
MR AHMAD KHALID BIN SALLEH LEADING FIREMAN FIRE & SECURITY	MR ABU ABUL HOSSEIN SCAFFOLD WORKER KYC SCAFFOLDING PTE. LTD.	MR JOHNNY LIM SENIOR ADMIN ASSISTANT HR & ADMIN	MR AHMED SUMON SCAFFOLD WORKER VORTEX ENGINEERING PTE. LTD.	MR SATHEESH PERIYASWAMY LEAD TECHNICIAN OLEFIN-I	MR SAN WIN SKILLED WORKER SINGAPORE TAKADA INDUSTRIES PRIVATE LIMITED

2. Behaviour Based Safety (BBS) Activities

(c) Monthly Exemplary Safe Staff / Worker Role Models

JULY		AUGUST		SEPTEMBER	
					
MR MOHD HAPZAL BIN AMAT SARPIN LEAD TECHNICIAN OLEFIN-II	MR LAI ANAK BANTA PIPE FITTER SANKYU (SINGAPORE) PTE LTD	MR ALVIN CULALA INSPECTION SUPERVISOR MAINTENANCE	MR RAHMAN MD SHAHINUR SCAFFOLDER VINDES ENGINEERING PTE LTD	MR VENUANATHAN MACHAP LEAD TECHNICIAN QUALITY CONTROL	MR YAN NANG SOE SITE SUPERVISOR ASAHI KOKUSAI TECHNION SINGAPORE PTE. LTD.
OCTOBER		NOVEMBER		DECEMBER	
					
MR AW SWEE SZE SENIOR LEADING FIREMAN FIRE & SECURITY	MR ROHENDRO BISWAS MONINDRO FOREMAN HOLCAM CONSTRUCTION PTE LTD	MR LOW KIA LOON SUPERINTENDENT IT & PLANT SERVICES	MR ARUMUGAM RANJITHKUMAR SCAFFOLDER HAI LECK ENGINEERING (PRIVATE) LIMITED	MR YEO WEI HOW TECHNICIAN OLEFIN-I	MR JOGRAJ SINGH INSULATOR SUPERVISOR FOSTER ASIA PACIFIC PTE LTD

2. Behaviour Based Safety (BBS) Activities

(d) BBS TRUsT Champion Award

Behaviour Based Safety (BBS) Champion

Award for 2021/2022



Jumali Bin Anwar
Fire & Security

I am honoured to receive this award. I have been with PCS Fire & Security for the past 6 years and I always try to adopt the good safety culture of PCS over the years.

I received guidance from my Officers and fellow Firemen in carrying out my assigned tasks. In doing so, I will try to find ways to improve the working conditions within PCS through the QBBS submissions.

I am a strong believer that Good Health is the Greatest Wealth and

Better be thousand times careful than once dead.

Therefore never forget about Safety. I would choose to prepare and prevent rather than repair and repent.

I will continue to work hard and ensure that everyone return home safely.





Review of HSE Performance



3. Safety Performance Awards

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

- Award is given when PCS employees and contractors meet the Total Recordable Case Frequency set and maintain a Lost Time Incident free period for the quarter
- PCS Employees and Contractors Achieved the Quarterly Set Target for all 4 Quarters in 2022
- Contractor workers received vouchers totalling S\$17,500 for the achievement in each quarter

3. Safety Performance Awards

(b) Contractors Safety Set Target (CSST)

- Award is given to the Direct Contractor Company which achieved a One Year Lost Time Incident Free 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

3. Safety Performance Awards

Contractor Companies awarded Commemorative Certificate for 2022

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




3. Safety Performance Awards

Contractor Companies awarded Commemorative Certificate for 2022



3. Safety Performance Awards





Contractor Companies awarded CSST Bonus Award for 2022

	ASAHI KOKUSAI TECHNEION SINGAPORE PTE. LTD.	FOSTER ASIA PACIFIC PTE LTD	KYC SCAFFOLDING PTE. LTD.
Award			
Category	1	1	1
Years worked without LTI	30	18	18
Cheque amount	\$1000	\$1000	\$1000

- 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

3. Safety Performance Awards

Contractor Companies awarded CSST Bonus Award for 2022

	SANKYU (SINGAPORE) PTE LTD	TRIDENT HYDRO JETTING PTE LTD	VINDES ENGINEERING PTE LTD	A+ ENGINEERING PTE. LTD.
Award				
Category	1	2	1	1
Years worked without LTI	18	18	18	7
Cheque amount	\$1000	\$500	\$1000	\$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

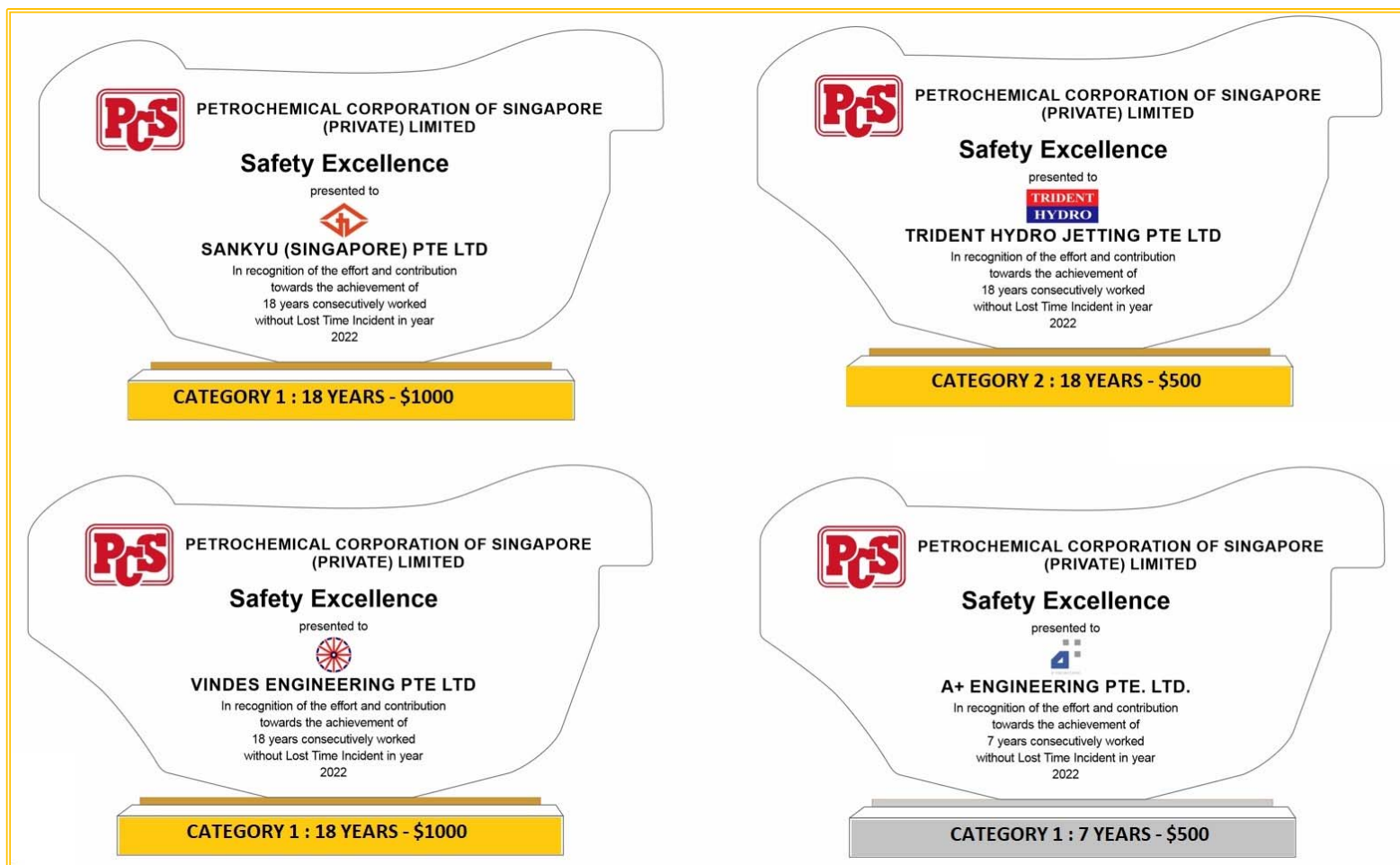
3. Safety Performance Awards

Contractor Companies awarded CSST Bonus Award for 2022



3. Safety Performance Awards

Contractor Companies awarded CSST Bonus Award for 2022



Review of HSE Performance



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WSH bizSAFE
Programme



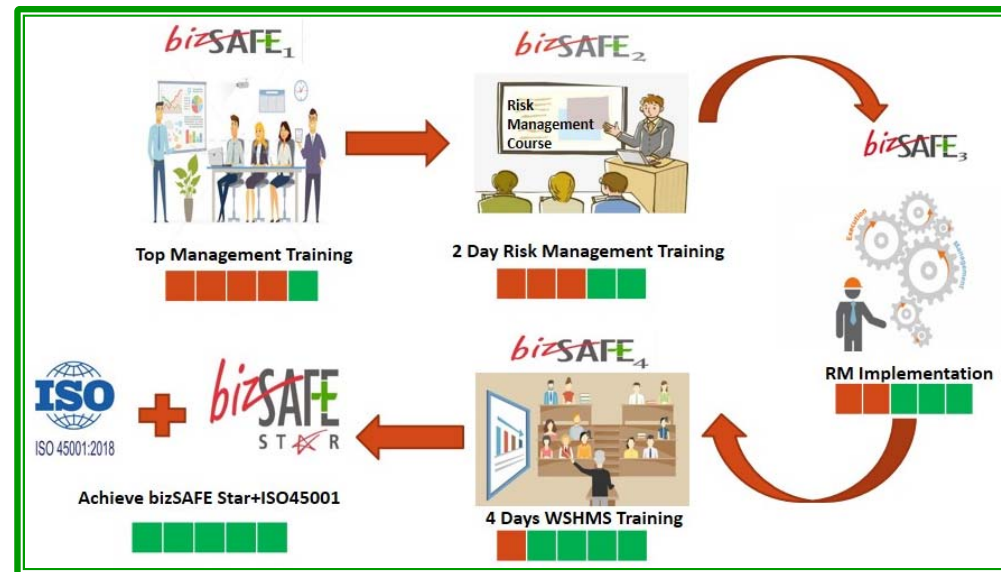
Annual PCS-Contractors
HSE meeting 2023

4. WSHC *bizSAFE* Programme



- PCS was one of the pioneering companies to become bizSAFE Mentor since 2011
- PCS status as bizSAFE Mentor has been successfully renewed until **9 Nov 2024**

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*

4. WSHC *bizSAFE* Programme



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	25 Sep 2024	11	Meisei International Private Limited	Level Star	04 Aug 2025
2	Kurihara Kogyo Co., Ltd.	Partner	13 Apr 2024	12	Prowess Engineering Design and Services	Level Star	20 Jun 2025
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 Technion 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 2025
8	Holcam Construction Pte Ltd	Level Star	18 Aug 2025	18	Vortex Engineering Pte Ltd	Level Star	01 Jun 2023
9	KYC Scaffolding Pte. Ltd.	Level Star	06 Dec 2025	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.**

4. WSHC *bizSAFE* Programme



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 2025
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 2026
7	The Wok People Pte. Ltd.	HR & Admin	Level Star	14 Feb 2025
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.**

Review of HSE Performance



5

HSE
Achievements
in 2022



Annual PCS-Contractors
HSE meeting 2023

5. HSE Achievements in 2022

- (a) No Lost Time Incident
- (b) Workplace Safety & Health Performance Award
- (c) Responsible Care[®] Award



5. HSE Achievements in 2022

(a) No Lost Time Incident

Achieved **18 years** of no Lost Time Incident safety milestone on 11 March 2022.



5. HSE Achievements in 2022

(b) Workplace Safety & Health Performance Award

PCS was awarded the Workplace Safety and Health (WSH) Performance (Excellence) Award by the WSH Council for the second year in 2022.

Applicants for the Excellence Award needs to be a recipient of the Gold award for three or more consecutive years.



5. HSE Achievements in 2022

(b) Workplace Safety & Health Performance Award

PCS Managing Director, Mr Hisashi Shibayama, received the Award at the ceremony held on 27 July 2022 at Resorts World Convention Centre.



“Our philosophy is one where we take ownership of our safety and health by working with our partners, who are our contractors, with an open two-way communication”

5. HSE Achievements in 2022

(b) Workplace Safety & Health Performance Award

The Straits Times article in the WSH Awards Special Supplement

WORKPLACE SAFETY & HEALTH AWARDS 2022

Identify, share and learn, not blame

Open and honest communication has helped keep the Petrochemical Corporation of Singapore accident-free for the last 18 years

BY MARIANNE TAN

A fatal on-site accident in 2004 in which a worker fell from a height was a wake-up call for the Petrochemical Corporation of Singapore (PCS).

Workplace safety protocols had been in place, but there was a lack of safety compliance awareness, communication and sense of ownership about them, said Mr Bernard Leong, a health, safety and environment (HSE) manager with the company.

Since the accident, PCS has gradually instilled a culture of open communication by formalising it through its three core Workplace Safety and Health (WSH) pillars and encouraging workers to take ownership of their own safety.

The "Stop And Report (STAR)" pillar, for example, empowers all staff, regardless of rank, to intervene and stop any unsafe act or condition, while the Behaviour Based Safety (BBS) observation encourages workers to identify and learn from both safe and at-risk behaviours without apportioning blame.

"Being an essential chemicals producer, our plants are running 24/7, and we rely heavily on contractors to support our maintenance activities. Our WSH has to move beyond the basics," says Mr Leong.

The firm's approach towards open communication exists at every level of the company. Contractor representatives sit in the committee involved in putting together WSH policies, while Mr Leong makes himself easily available to receive feedback from his workers through text or e-mail.

He recalls a site visit where one of his workers stopped a PCS shareholder from overstepping a safety boundary, for which

Petrochemical Corporation of Singapore empowers all staff, regardless of rank, to intervene and stop any unsafe act or condition, and encourages them to identify and learn from both safe and at-risk behaviours. PHOTO: PETROCHEMICAL CORPORATION OF SINGAPORE

Mr Leong complimented him for speaking up promptly.

He adds: "Even the shareholder was impressed that we had such an open and honest culture."

Thanks to this mindset, PCS has been accident-free since 2004. Its sustained performance in WSH practices was recently recognised with a second WSH Performance (Excellence) Award, presented by the WSH Council to organisations and individuals who have achieved exemplary safety and health management systems, and gone to extraordinary lengths to safeguard employees and contractors at their worksites. The Excellence Award is given to companies that have won the WSH Performance (Gold) Award for three or more consecutive years.

PCS is currently carrying out its digital transformation plans, and reviewing the



Winner of
WSH Performance
(Excellence) Award
**PETROCHEMICAL
CORPORATION
OF SINGAPORE**

processes and systems where technology can be implemented in order to eliminate hazards while improving efficiency. It also intends to formalise the wellness initiatives it put in place during the Covid-19 pandemic, including the Employee Assistance Programme which provides confidential professional support and consultation to workers who require assistance to manage their overall well-being.

Says Mr Leong of PCS' achievement: "It is good that we have been accident-free for the last 18 years, but it is more important that we are a company that is intrinsically motivated to care for its workers' health and safety, so that everyone feels that the company cares for them. With this sense of ownership, workers are empowered to look out for one another as well."

"It is good that we have been accident-free for the last 18 years, but it is more important that we are a company that is intrinsically motivated to care for its workers' health and safety, so that everyone feels that the company cares for them."

MR BERNARD LEONG
health, safety and environment (HSE)
manager, Petrochemical Corporation
of Singapore

5. HSE Achievements in 2022

(c) Responsible Care® Award

SCIC Responsible Care®
Leadership Award 2022

- to recognise companies who have attained the Excellence Award for three consecutive year for all codes relevant to their business
- PCS has achieved this award for the 7th year



Review of HSE Performance



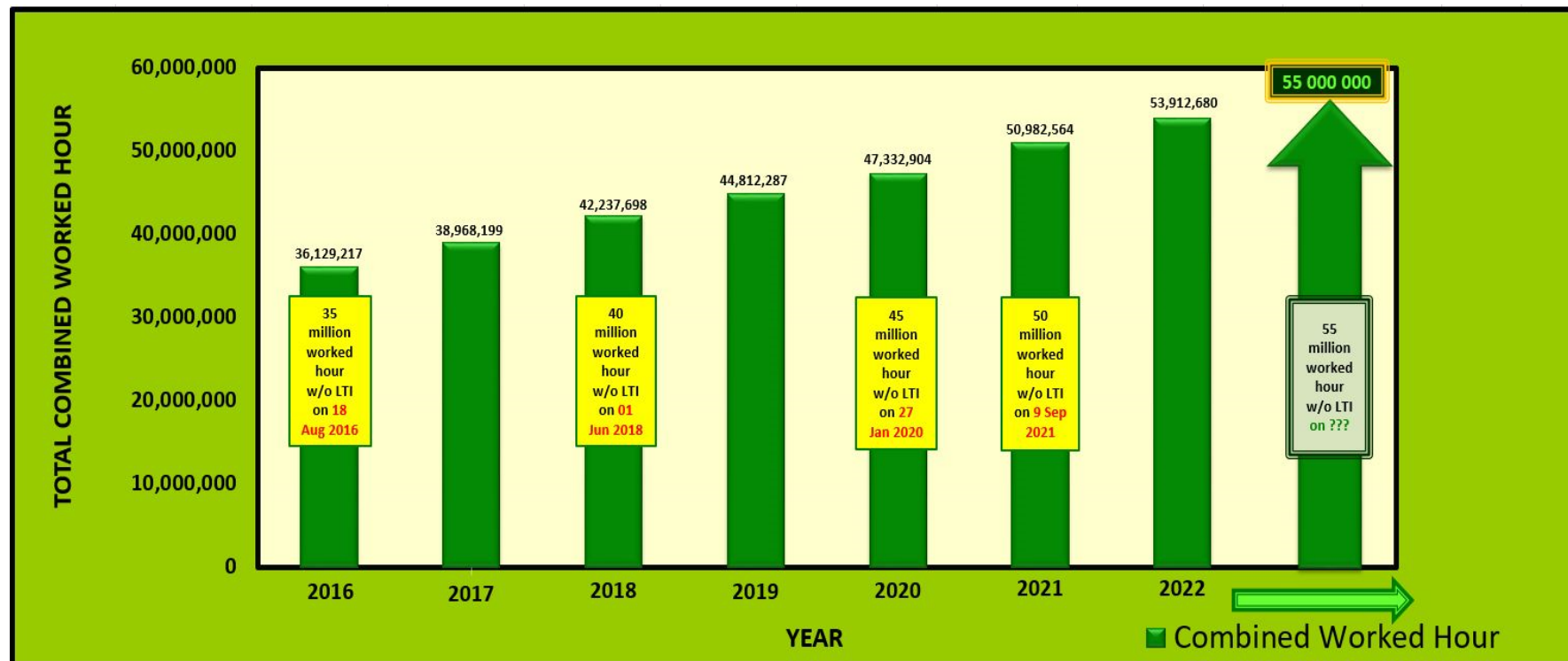
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A diagram consisting of a green circle with the number '6' inside, connected by a curved grey line to a green rectangular box on the right.

Next Safety
Performance
Target

6. Next Safety Performance Target

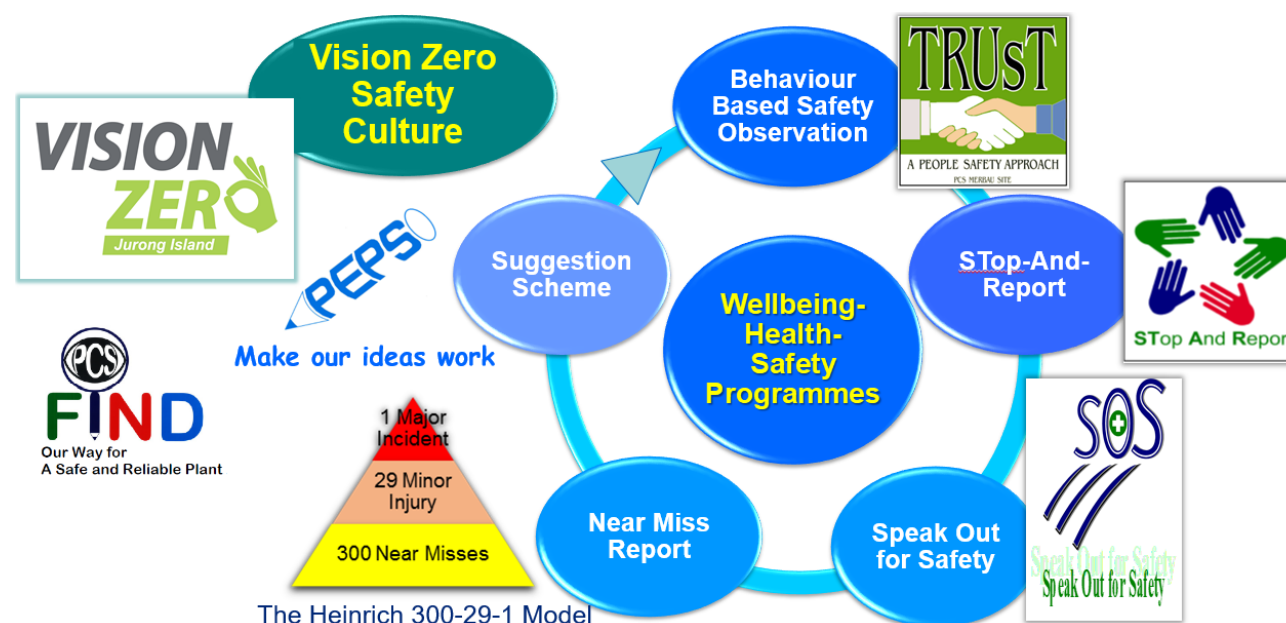
55 million Hours Worked without LTI and beyond ...



** 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 2022



THANK YOU



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HSE meeting 2023