



MINISTRY OF  
MANPOWER

ANNUAL REPORT 2017

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OCCUPATIONAL  
SAFETY AND HEALTH  
DIVISION

# SAFE AND HEALTHY WORKPLACES

GLOBAL VISION FOR PREVENTION



“...it is our duty to reduce accidents and injuries to the absolute minimum, by instilling safety and health consciousness, and safe and healthy work practices.”

– PM Lee Hsien Loong

### About OSHD

The Occupational Safety and Health Division (OSHD) is a division under the Ministry of Manpower (MOM) that promotes Occupational Safety and Health at the national level. OSHD works with employers, employees and all other stakeholders to identify, assess, and manage Workplace Safety and Health risks so as to eliminate death, injury and ill health. OSHD is also the WHO Collaborating Centre for Occupational Health, and the ILO CIS National Centre for Singapore.

### Our Vision

A safe and healthy work environment for everyone and a country renowned for best practices in Workplace Safety and Health.

### Our Mission

To eliminate death, injury and ill health from all workplaces.

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## DIRECTOR'S MESSAGE

*“Every life counts and every worker matters! When an accident occurs, we have to ensure that we have done our best to prevent it from happening again. I strongly believe that prevention must become a part of our common culture and be embraced by everyone.”*

When I look back at 2017, it was one of the most memorable and exciting years that we, in OSHD, have been through. Why? It was the year that Singapore hosted the world's largest event on safety and health – the 21st World Congress on Safety and Health at Work 2017. Singapore's OSH community benefited tremendously from the rich discussions and sharing during the event with more than 3,600 delegates, coming from over 100 countries. More importantly, it was also the year where the fatality rate dropped to 1.2 per 100,000 employed persons, the lowest since our reform started in 2005. We should be encouraged by the progress, but we should also mourn the death of 42 workers. We must remind ourselves that the death of these workers could have been prevented in the first place. In other words, there are more work to be done!

Our improved safety record achieved thus far did not happen by chance. It was a result of the tireless contributions by industry and key stakeholders, working as one in raising the standards and performance in WSH. We should never be complacent and continue to work towards eliminating all accidents, injuries and ill health from workplaces. That is why we have embarked on Vision Zero since 2015 to imbue the belief that every injury and ill health arising from work is preventable. It requires a mindset shift from focusing on individual fault finding to finding solutions in preventing injuries and ill health.

The theme of our annual report for this year is **“Safe & Healthy Workplaces: Global Vision for Prevention”**. This was also the theme of the World Congress. We have achieved much, but it is by no means the end of our journey. To do even better in future, we need to continue to embrace this prevention mindset at the national, regional and global levels.

Human capital is Singapore's only resource. Every life counts and every worker matters! When an accident occurs, we have to ensure that we have done our best to prevent it from happening again. I strongly believe that prevention must become a part of our common culture and be embraced by everyone. We will be consulting industry stakeholders on how we can further entrench a prevention mindset in Singapore.

We hope you find this Annual Report 2017 informative on our constant efforts to improve WSH. Together, we will be able to achieve our Vision Zero goal for a healthy workforce in a safe workplace.



**ER HO SIONG HIN**  
Divisional Director and Commissioner  
for Workplace Safety and Health

## OUR SENIOR MANAGEMENT



**ER HO SIONG HIN**  
Divisional Director and  
Commissioner  
for Workplace Safety and Health



**SILAS SNG**  
Deputy Divisional Director and  
Deputy Commissioner  
for Workplace Safety and Health



**PATRICK HAN**  
General Manager  
Workplace Safety and  
Health Council



**DR GAN SIOK LIN**  
Executive Director  
Workplace Safety and  
Health Institute



**CHRISTOPHER MH KOH**  
Director  
Policy, Information and Corporate  
Services Department



**ER MOHD ISMADI**  
Director  
OSH Specialist  
Department



**CHAN YEW KWONG**  
Director  
OSH Inspectorate  
Department



**ER GO HENG HUAT**  
Director  
Major Hazards  
Department



**KEE EE WAH**  
Director  
Work Injury Compensation  
Department



**HO LAI FUNG**  
Director  
Industry Practices, Sensing  
and Engagement Department



**WINSTON YEW**  
Deputy Director  
Industry Capability Building  
Department

# OUR ORGANISATION STRUCTURE

## OCCUPATIONAL SAFETY AND HEALTH DIVISION



**ER HO SIONG HIN**

Divisional Director and Commissioner for Workplace Safety and Health



**MR SILAS SNG**

Deputy Divisional Director and Deputy Commissioner for Workplace Safety and Health



### POLICY, INFORMATION & CORPORATE SERVICES

**MR CHRISTOPHER MH KOH**

Director

- Policy and Planning
- Information Management
- Corporate Services



### OSH SPECIALIST

**ER MOHD ISMADI**

Director

- Engineering Safety
- Occupational Hygiene
- Occupational Medicine
- International Collaboration



### OSH INSPECTORATE

**MR CHAN YEW KWONG**

Director

- Operations Construction and Surveillance
- Operations (General Workplaces)
- Accident Investigation
- Inspectorate Specialist Group
- Operations Planning & Development



### MAJOR HAZARDS

**ER GO HENG HUAT**

Director

- Safety Case Operations
- Strategic Planning



### WORK INJURY COMPENSATION

**MS KEE EE WAH**

Director

- Incident Reporting and Investigation
- Claims and Medical Board Management

## WORKPLACE SAFETY AND HEALTH COUNCIL



**MR PATRICK HAN**

General Manager



### INDUSTRY PRACTICES, SENSING AND ENGAGEMENT

**MS HO LAI FUNG**

Director

- Marketing Communications and Engagement
- Strategy and Development (Construction)
- Industry Sensing and Development
- WSH Practices



### INDUSTRY CAPABILITY BUILDING

**MR WINSTON YEW**

Deputy Director

- Manpower Capability Building
- Enterprise Capability Building



### STRATEGY AND MANAGEMENT

**MR PATRICK HAN**

General Manager

- Strategy and Management
- Total WSH and Return to Work

## OUR SENIOR CONSULTANTS



### WORKPLACE SAFETY AND HEALTH INSTITUTE

**DR JUKKA TAKALA**



### OSH SPECIALIST

**DR HO SWEET FAR**



### OSH SPECIALIST

**DR LEE HOCK SIANG**

## WORKPLACE SAFETY AND HEALTH INSTITUTE



**DR GAN SIOK LIN**

Executive Director

- Knowledge Hub
- Partnerships, Planning and Development
- Research and Solutions
- Data Analytics

# POLICY, INFORMATION & CORPORATE SERVICES (PICS) DEPARTMENT



The OSH Policy, Information and Corporate Services (PICS) Department is the central co-ordinating department within OSHD. Its primary role is to ensure that the various arms of OSHD work in unison towards our common vision of total workplace safety and health.

## PLANNING & POLICY BRANCH

The Planning and Policy Branch oversees the development and review of OSH policies and legislation that support the Division's goals of achieving the desired Workplace Safety and Health (WSH) outcomes. The Branch also oversees the business and corporate planning functions including organisation developmental efforts. Leveraging effective information systems and business intelligence, the Branch analyses and identifies emerging WSH trends and risks, while also developing and implementing new intervention levers to address emerging concerns.

In 2017, together with various OSH departments, the Branch had developed and launched several key capability building and engagement programmes for industry sectors such as the enhanced Mobile Work-at-Heights (WAH) Clinics to reach out to more employers and employees on managing WAH hazards as well as the Managing Onsite Vehicular Safety (MOVEs) programme to guide them on improving capability in workplace traffic management. The Branch is also working on the review of the WSH2028 National Strategy to map out new strategies and key priority areas for improving WSH outcomes in Singapore for the next 10 years.

## INFORMATION MANAGEMENT BRANCH

The Information Management Branch is made up of OSH Technology, OSH Systems, Licensing and Data Management. 2017 was a fruitful year for the Branch with the accomplishment of a few key impactful initiatives:

- OSH Technology – January 2017 saw the launch of the inaugural Workplace Safety and Health (WSH) Technology Symposium officiated by Minister of State (Manpower) Sam Tan. It aimed to raise the standards of safety and health at workplaces by augmenting

the use of technology and was attended by some 300 participants. In September 2017, Prime Minister Lee Hsien Loong launched the first Ministry of Manpower (MOM) WSH Technology Challenge which was a call for collaboration to develop technological solutions to address the vehicular safety and received 36 proposals from solutions providers, research institutes and institutes of higher learning as well as 13 partners who volunteered as test-bed platforms for the selected solutions.

- OSH Systems – The whole of 2017 saw the redesigning and redeveloping of all integrated Occupational Safety and Health (iOSH) system e-services to a more user friendly interface, incorporating MyInfo which is a one-stop data platform to make government transactions easier by automatically filling out personal information for government e-forms. Another Whole-of-Government initiative is the CorpPass implementation to create a corporate digital identity for companies, businesses and other entities to transact with government agencies online.
- Licensing – The new LicenceOne portal for Factory Notification and Factory Registration and the online Self-Assessment Tool for Factory Registration and Notification were launched. The LicenceOne portal is a one stop online portal which enables companies to apply and manage their factory licences (as well as other government licences) on a common dashboard. The Self-Assessment Apps on MOM website further enables the companies to self-help and assess whether their workplaces are required to be registered or notified as a factory with MOM, without the need to make enquiries.
- Data Management – A one-stop WSH data access is provided to authorised MOMers with migration of StatsCentral to MOM Insights (OSH Business Intelligence portal). In addition, a new self-help service is launched to allow designated MOMers to conduct their company screening. This service will potentially help to reduce 60% of work required for data request processing and reduce the turnaround time for business users from three working days to half a working day.

## CORPORATE SERVICES BRANCH

Corporate Services (CS) Branch has the ongoing task of building and sustaining a one-OSHD culture. It also manages the efficient deployment of organisational resources and oversees the administrative aspects of the organisation, assuring governance within the division.

To imbue an Excellence in Service culture, officers, along with their glowing accolades from the public, are featured on a monthly "OSH Wall of Compliments" mailer. The "OSH Wall of Compliments" aims to show OSHD's appreciation to those who are committed in sharing the common vision for service excellence and embracing the H.E.A.R.T. principles in their work. It serves to spur others to demonstrate good service examples too.

While OSHD strives to improve our service levels, enhancing staff competency is equally important. Hence, our competency framework is carefully designed to meet the challenges of a fast changing operational environment. We partnered with the LEAP (Learn. Excel. Aspire. Pass It On) committee, to revamp the Ministry of Manpower's Orientation Programme, which included careful consideration of our operational functions and its integration, from policy formulation to operational execution at ground, always keeping our customers at the centre of our development. OSHD also runs its Lunch-and-Learn series to motivate, inspire and enhance the learning of our staff through quick tips and take-away during lunch hour.

CS Branch consistently seeks to engage and motivate staff through constant feedback and training needs assessments. We calibrate our training efforts to deliver maximum results through experiential learning and self-reflection that can be translated into real actions. We continue to strive to build the capabilities of our staff to meet the challenges of the future. Aligning to the public service at whole of government level, we are developing our Engineering Competency Framework with our staff in mind, to co-create more innovative and effective programmes and competencies aimed to be future ready.

# OCCUPATIONAL SAFETY & HEALTH INSPECTORATE (OSHI)



The Occupational Safety and Health Inspectorate (OSHI) Department is the enforcement arm of the Occupational Safety and Health Division (OSHD) and focused on reducing safety and health risks at workplaces by implementing an effective regulatory framework. The Department accomplished by expanding its reach and depth of enforcement through strategic inspections, surveillance of workplaces and enforcing the law when necessary. High risk workplaces are given targeted attention to significantly improve overall WSH performance.

## OPERATIONS CONSTRUCTION AND SURVEILLANCE BRANCH

The Operations (Construction and Surveillance) Branch carries out enforcement actions on construction worksites which are considered as high risk workplaces as part of the focus of OSHD's enforcement effort. This branch conducts targeted inspections and sustained enforcement actions based on analysis of industry trends and Workplace Safety and Health (WSH) statistics so that the greatest impact on improving WSH performance can be delivered. This branch also administers the Business Under Surveillance Programme. Under this programme, assistance is provided to companies with poor workplace safety and health records to develop or improve on their safety and health management systems and to build and foster a strong WSH culture within the company.

## OPERATIONS (GENERAL WORKPLACES) BRANCH

The branch carries out enforcement actions on high to medium risk workplaces such as shipyards, manufacturing factories, warehouses, etc. Through enforcement efforts, the Operations (General Workplaces) Branch ensures that these workplaces have good safety and health standards in place and employers are proactive in their management of WSH. In addition, the branch also provides monitoring of workplaces through the implementation of the Auxiliary Enforcement Agency programme, utilising outsourced inspectors to extend our enforcement reach. The branch also manages operations control and command in response to major WSH incidents.



## ACCIDENT INVESTIGATIONS BRANCH

Accident investigations are another key pillar in OSHD's regulatory framework. OSHD strongly believes that learning from past accidents and mistakes is critical in driving WSH improvements. Lessons learnt from accidents are shared with the industry. The Accident Investigations Branch investigates serious workplace incidents, such as fatalities and dangerous occurrences. The investigation aims to uncover the root cause(s) of the incidents so as to guide the development and implementation of effective control measures and systematic interventions to prevent recurrences. The effectiveness of enforcement and accident investigations are constantly monitored through trending and analysis to keep regulatory framework relevant in tandem with changes in the industry.

## INSPECTORATE SPECIALIST GROUP

The Inspectorate Specialist Group (ISG) provides technical support and solutions on high-risk construction technologies such as Prefabricated Prefinished Volumetric Construction (PPVC), Prefabricated Bathroom Unit (PBU) installations, and critical falseworks and temporary structures in major infrastructure construction. The Group regularly collaborates with industries and other regulatory agencies such as the Building and Construction Authority to share information and conduct joint worksite visits. Additionally, the Group investigates dangerous occurrences involving collapses of formwork and scaffold, and takes legal actions against parties who fail to discharge their duties under the WSHA and its subsidiary legislations. The Group also conducts worksite audits and liaise with relevant stakeholders to ensure the standard and quality of WSH management systems.

## OPERATIONS PLANNING & DEVELOPMENT BRANCH

Operations Planning & Development (OPD) Branch is responsible for operations planning and analysis, feedback management, administrative and corporate support to departments. OPD works closely with PICS Policy and Planning Branch to develop and integrate policies into actionable operational doctrines and programmes for implementation. This includes collating and analysis of enforcement information for efficient operations planning. Besides that, OPD monitors and publishes OSHI's enforcement related and prosecution statistics for internal usage and public release. The Branch also handles complaints and enquiries on safety matters and work closely with operational branches to deploy necessary resources for timely interventions. It also manages and oversees department resources through prudent budgeting and procurement practices.

## MAJOR HAZARDS DEPARTMENT (MHD)

MHD administers the Safety Case regime by conducting Safety Case assessments. This is to ascertain if Major Hazard Installations (MHIs) have identified major accident hazards and put in place adequate, effective and reliable risk reduction measures. MHD also investigates process-related incidents, engages stakeholders in the MHI industry and designates groups of MHIs to facilitate information sharing for better management of domino effects.

MHD also receives and reviews submissions of Quantitative Risk Assessments (QRAs). To effect a single front across MOM, NEA and SCDF, MHD coordinates and responds to QRAs from MHIs and non-MHIs.



## WORK INJURY COMPENSATION DEPARTMENT (WICD)

WICD administers a system that ensures the right of an employee to claim compensation in the event of a work-related injury, death or occupational disease under the Work Injury Compensation Act (WICA). The mission of the WICD is to uphold a simple and transparent work injury compensation system for our stakeholders so that eligible employees or their dependants can receive timely compensation.

### INCIDENT REPORTING AND CUSTOMER OUTREACH BRANCH

The Incident Reporting and Customer Outreach (IRCO) Branch administers the iReport system – a one-stop e-Service for reporting work-related accidents, occupational diseases and dangerous occurrences under the WICA and the Workplace Safety and Health Act (WSHA). The Branch also carries out screening of occupier and traffic accident reports to determine admissibility under WICA. In addition, IRCO carries out outreach activities to promote awareness of WICA rights and responsibilities to employers and workers.

### INVESTIGATION BRANCH

The Investigation Branch investigates and recommends offences under WICA and recommend an appropriate legal action against culpable offenders under WICA to ensure a fair compensation system for both employees and employers. They also screen reports of accidents that did not occur during official work duties, seamen cases

and non-notifiable occupational diseases to determine the admissibility under WICA.

### CLAIMS MANAGEMENT BRANCH

The Claims Management Branch adjudicates claim disputes and initiates appropriate enforcement and prosecution actions against errant employers and employees. They process the injured employees' claims to assist them in claiming fair compensation for their work injury. The implemented settlement orders prior to issuance of Notice of Assessments allow early resolution of contentious claim matters between employers and injured employees. In addition, the Branch has implemented e-submission of documents to reduce hard copy submission.

### MEDICAL BOARD SECRETARIAT BRANCH

The Medical Board Secretariat Branch supports the Work Injury Claim (WIC) process by ensuring the expeditious and accurate return of completed medical reports from medical institutions. It further facilitates the prompt referral and receipt of reassessment medical reports made by the Work Injury Compensation Medical Board (WICMB). This ensures that WICMB and partner medical institutions operate smoothly. The Branch works closely with restructured hospitals to continually find ways to improve the returns of medical reports by closely monitoring the medical reports and issuing advisories, letters and templates to encourage early medical tests and assessments.



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# OCCUPATIONAL SAFETY AND HEALTH SPECIALIST (SPECS)

The SPECS Department provides specialist support in the development of WSH standards and best practices, as well as the investigation of complex accidents and occupational diseases. The department conducts operational research, develops and implements strategies and targeted programmes for specific WSH hazards and industries. The department also collaborates with international organisations and national institutes in projects, information exchange, visits and training.

## OCCUPATIONAL HYGIENE (OH) BRANCH

The OH Branch provides technical support and guidance in the implementation of programmes to enable workplaces to manage occupational health hazards. To complement engagement efforts, targeted enforcements focusing on specific hazards and industries are carried out. The Branch works closely with Occupational Medicine (OM) Branch in evaluating exposures and recommending preventive measures.

The Branch also collaborates with other agencies and industry partners to develop workplace health standards and best practices. It participates in international workshops to share and gain new insights on occupational risks and their prevention.

## OCCUPATIONAL MEDICINE (OM) BRANCH

The OM Branch provides specialist medical expertise required in the diagnosis, management and prevention of occupational diseases. The Branch promotes best practices in occupational health through guidelines for diagnosis, investigation and management of occupational and work-related diseases. The Branch has also launched the Return-To-Work (RTW) programme to help injured workers get back to work.



## ENGINEERING SAFETY (ES) BRANCH

The ES Branch provides in-depth technical and engineering services and solutions to guide the safe use of high-risk equipment such as lifting machines, mobile elevated work platforms and pressure vessels. The Branch is involved in the development of WSH standards and best practices, and conducts investigation of incidents relating to the use of such equipment. The Branch also carries out applied research and data analysis to provide evidence for the development and implementation of strategies and targeted programmes. The Branch regularly collaborates with industries and international organisations to share information, conduct visits and training sessions and promotes the safe use of equipment.



## WORKPLACE SAFETY AND HEALTH COUNCIL (WSHC)



Established on 1 April 2008, the Workplace Safety and Health (WSH) Council comprises 17 leaders from major industries (including construction, manufacturing, marine industries, petrochemicals, and logistics), government, unions, as well as professionals from the legal, insurance, and academic fields.

WSH Council collaborates with the Ministry of Manpower (MOM) and other government agencies, the industry, the employers, trade unions, and professional associations, to develop strategies to raise WSH standards in Singapore and realize the national WSH2018 vision.

With effect from 1 October 2017, the department that is supporting WSH Council has been the Tripartite Alliance Limited (TAL). The aim is to build a closer tripartite partnership and have tripartite partners co-own and co-drive the WSH agenda.

### THE WSH COUNCIL KEY FUNCTIONS ARE:

- build industry capabilities to better manage WSH;
- promote safety and health at work and recognise companies with good WSH records; and
- set acceptable WSH practices.



The departments that support the WSH Council comprises the following:

### INDUSTRY PRACTICES, SENSING AND ENGAGEMENT

The Industry Practices, Sensing and Engagement (IP,S&E) department drives the development and adoption of good WSH practices, and support the Council's industry committees in identifying sectoral gaps and propose solutions to achieve sustainable improvements in WSH. IP,S&E also leads the overall WSH strategic communications and promotional plans and collaborates with industry stakeholders to raise awareness and industry participation in WSH.

### INDUSTRY CAPABILITY BUILDING

The Industry Capability Building (ICB) department leads WSH capability building efforts in organisations and people. ICB helps to raise WSH standards in organisations through its flagship programmes bizSAFE and CultureSAFE. The department also oversees the development and implementation of a comprehensive competency training framework for WSH professionals, managers, supervisors and operatives to support the national WSH movement.

### STRATEGY AND MANAGEMENT

The Strategy and Management (S&M) department provides policy guidance and oversees the work planning, budget allocation, and business performance functions of the WSH Council. S&M also works with MOM to monitor the achievements and implementation of national WSH strategies.

# WORKPLACE SAFETY AND HEALTH INSTITUTE (WSHI)



## WSH Institute Strategy Map

The WSH Institute was established in April 2011 as part of Singapore's WSH 2018 strategy to provide forward-looking, evidence-based insights and practical WSH solutions to MOM, WSH Council and key stakeholders for the formulation and review of national WSH policies, strategies and WSH practices. WSH Institute's research efforts enable businesses to create safe and healthy workplaces for their employees.



## GOVERNANCE

The WSH Institute Governing Board provides strategic guidance and directive to facilitate the Institute to achieve her vision and mission. Chaired by Mr Khoo Teng Chye, Executive Director of Centre for Liveable Cities since July 2015, the Governing Board consists of members from the industry, the labour movement, government agencies and institutions of higher learning. Tapping on the board members' expertise in research, policy making and training, WSH Institute aims to create a vibrant and established research community pursuing WSH research. Following WSH Council's re-constitution under the Tripartite Alliance Ltd (TAL) on 1 October 2017, WSH Institute comes under the Ministry of Manpower.

## OUR BRANCHES

### Research and Solutions



The main function of the Research & Solutions (R&S) Branch is to conduct translational WSH research to provide evidence for policy-making and solutions to prevent and manage safety and health risks at work. Research projects are undertaken either in-house or in collaboration with research institutions. Solutions are co-created with industry partners so as to strengthen real-world application and research findings are translated and communicated to the industry, WSHC and MOM.

### Knowledge Hub



The Knowledge Hub Branch is responsible for horizon scanning, making sense of new and emerging risks and trends in the workforce, workplace and working life, and assessing its impact on WSH in Singapore. The Branch is also responsible for the effective communication of the Institute's research outcomes, products and services to partners and stakeholders. This includes the publication of the OWLinks e-newsletter and the management of key events and digital platforms. Going forward, the Branch will review and streamline the communication system and processes for research outcomes to deliver impactful insights to our stakeholders.

### Data Analytics



The Data Analytics Branch provides timely WSH analytics to support MOM and WSH Council in WSH policies, strategies development and other intervention actions aimed at reducing workplace incidents and ill health. The Branch also produces in-depth analyses of the WSH trends, and conducts relevant overseas comparison and benchmarking, so as to guide WSH planning by industries. It publishes the bi-annual National WSH Statistics Report and quarterly highlights to provide timely information on Singapore's WSH landscape and disseminate statistical information and analysis through publications and data visualisation tool on the Institute's website. The Branch also makes use of multi-dimensional data and information, as well as robust statistical processes to identify potential leading indicators to guide monitoring and proactive actions in the prevention of WSH incidents.

### Partnerships, Planning and Development



The Partnerships, Planning and Development Branch works closely with other Branches within the Institute and in OSHD to strategise and plan all aspects of the research management process including planning and financial matters. The Branch develops and maintains the processes, systems and procedures to monitor all key work activities and to ensure the smooth running of the research of the Institute. It also leads, drives and establishes partnerships with local and overseas institutions, including the industry, to advance the WSH research outcomes.



# WSH FRAMEWORK

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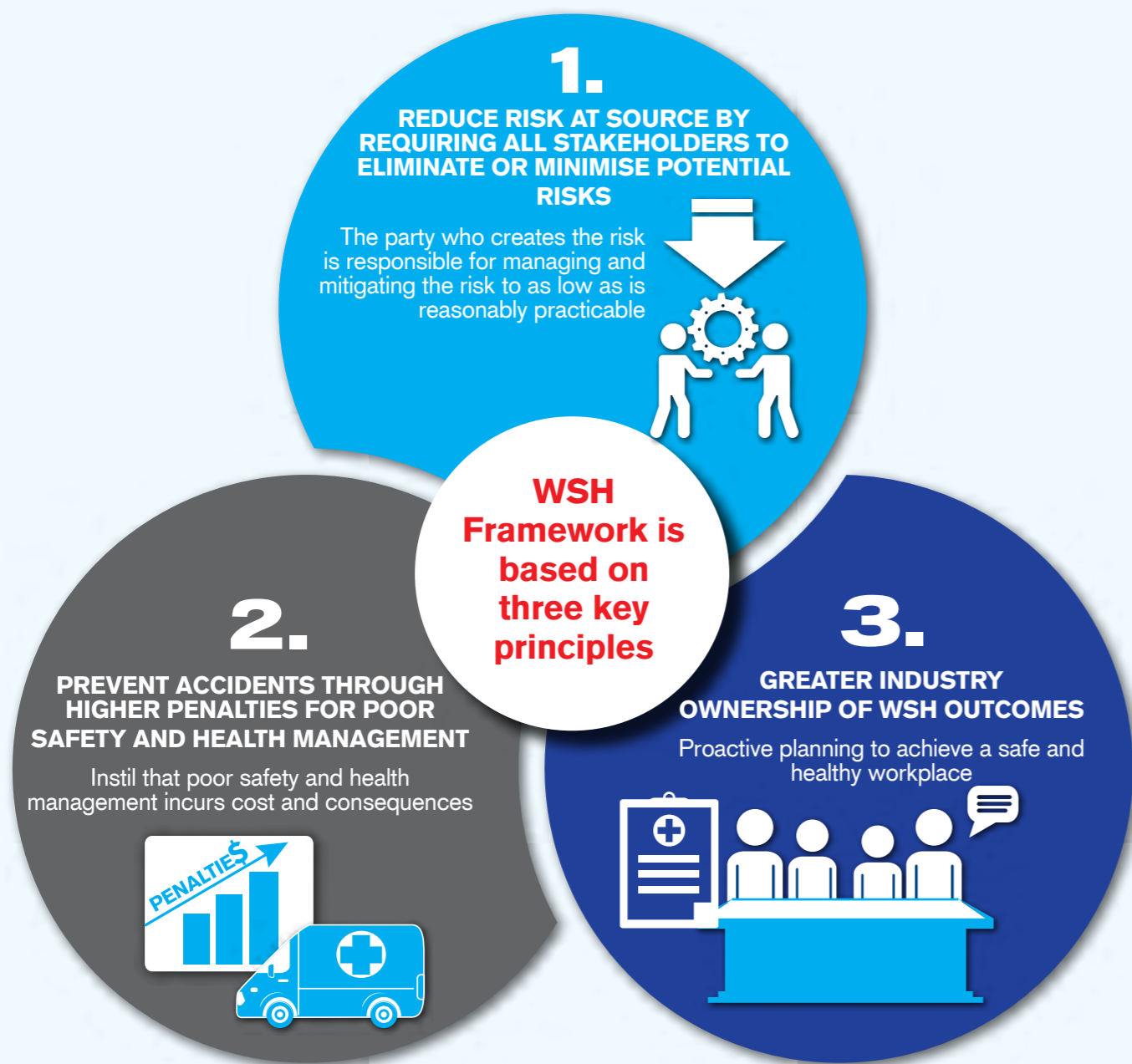
WSH 2018 **22**



# OVERVIEW OF WSH FRAMEWORK

## PRINCIPLES OF WSH FRAMEWORK

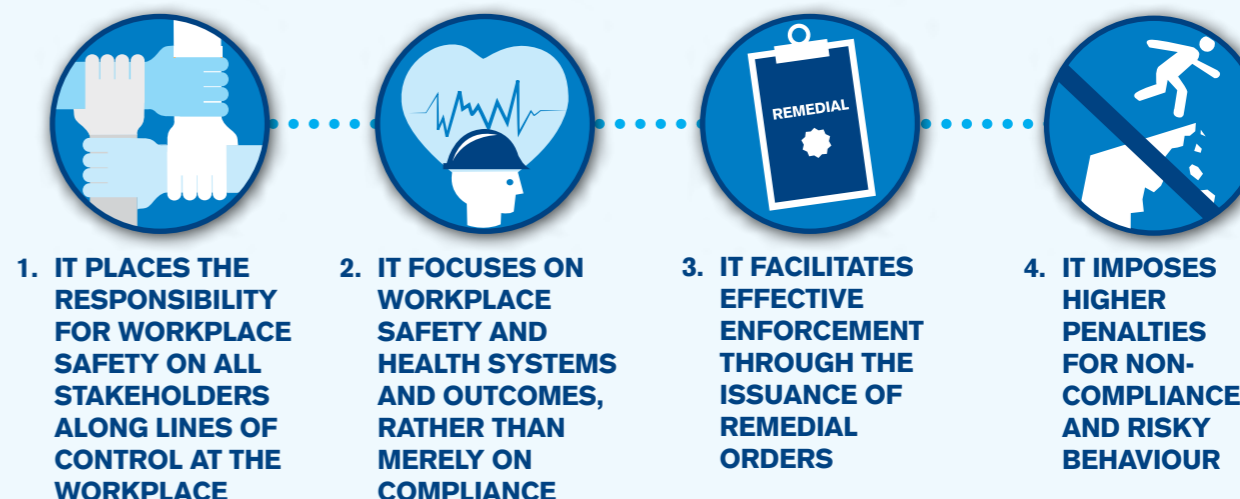
First conceptualised in 2005, Singapore's Workplace Safety and Health (WSH) framework guides all stakeholders including the government, industry, as well as all employees in the management of WSH. Collectively, the framework aims to cultivate a shift in the mindset of all stakeholders towards WSH to take pre-emptive steps to ensure the safety and health of all individuals at the workplace – from top management to the last worker.



## WORKPLACE SAFETY AND HEALTH ACT

To support the WSH framework, the Workplace Safety and Health Act (WSHA) was enacted in 2006. It emphasises the importance of managing WSH pro-actively by requiring stakeholders to take reasonably practicable measures to ensure the safety and health of persons affected by the work being carried out.

### Four Key Features of WSHA:



## THE STAKEHOLDER GROUPS

WSHA also assigns liability to those who create and have management and control over workplace safety and health risks.



# OVERVIEW OF WSH FRAMEWORK

## WORK INJURY COMPENSATION ACT

Under the Work Injury Compensation Act (WICA), an employee can claim compensation from his employer if he suffers an injury or medical condition by accident due to work.

As an employer, you are liable to compensate your employee, regardless of who was at fault, even if your employee no longer works for you.

### WICA AT A GLANCE

#### Who is covered?



All employees, with some exceptions.

#### What is my duty?



- Notify the Ministry of Manpower (MOM) of work-related accidents.
- Insure your liability towards your employee for work-related injuries.

#### What can my employee claim?



- Medical leave wages.
- Medical Expenses.
- Lump sum payments for permanent incapacity or death.

#### How much can my employee claim?



Amounts are subject to limits.



### WHO IS COVERED UNDER WICA



#### COVERED

- All employees who are engaged under “a contract of service” or “contract of apprenticeship” with an employer, regardless of salary level.



#### NOT COVERED

- Any member of the Singapore Armed Forces.
- Uniformed officer of the Singapore Police Force, Singapore Civil Defence Force, Central Narcotics Bureau and Singapore Prisons Service.
- Self-employed person or independent contractor.
- Domestic worker.



“Contract of service” is any agreement, written or oral, where one person agrees to employ another as an employee.

## WORKPLACE SAFETY AND HEALTH 2018

The National Target for WSH is to achieve a workplace fatality rate of



**1.8 PER 100,000 WORKERS**

The target is jointly supported by MOM and WSH Council through the execution of the WSH 2018 Plus which adds to the national WSH 2018 strategy document that was launched in 2009. WSH 2018 Plus sets out the plan to bring us back on track to achieve the 2018 target while laying the foundation to address emerging WSH challenges and sustain continuous improvement beyond 2018.

### WSH 2018 Plus plan focuses on 3 key priorities

**Key Priority 1: Improving WSH Performance in the Construction Industry**

**Key Priority 2: Strengthening WSH Competency**

**Key Priority 3: Building Collective WSH Ownership**

### WSH 2018 VISION

**Safe and healthy workplace for everyone and a country renowned for best practices in workplace safety and health**

### STRATEGIC OUTCOMES

REDUCTION IN WORKPLACE FATALITIES AND INJURY RATES

WSH IS AN INTEGRAL PART OF BUSINESS

SINGAPORE IS RENOWNED AS A CENTRE OF EXCELLENCE FOR WSH

A PROGRESSIVE AND PERVASIVE WSH CULTURE

### STRATEGIES

**STRATEGY 1**  
Build strong capabilities to better manage WSH



**STRATEGY 2**  
Implement an effective regulatory framework



**STRATEGY 3**  
Promote the benefits of WSH and recognise best practices



**STRATEGY 4**  
Develop strong partnerships locally and internationally





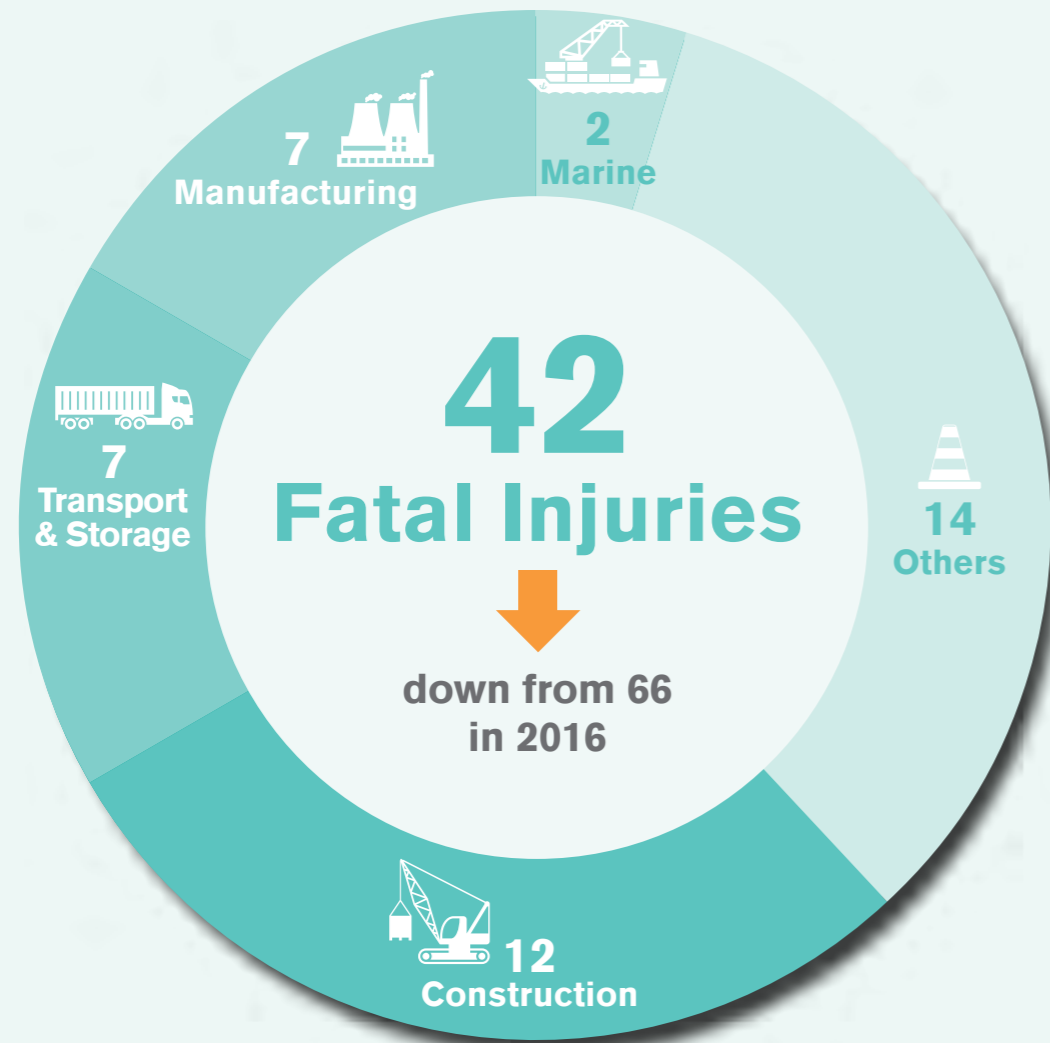
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# WSH PERFORMANCE

# WSH PERFORMANCE

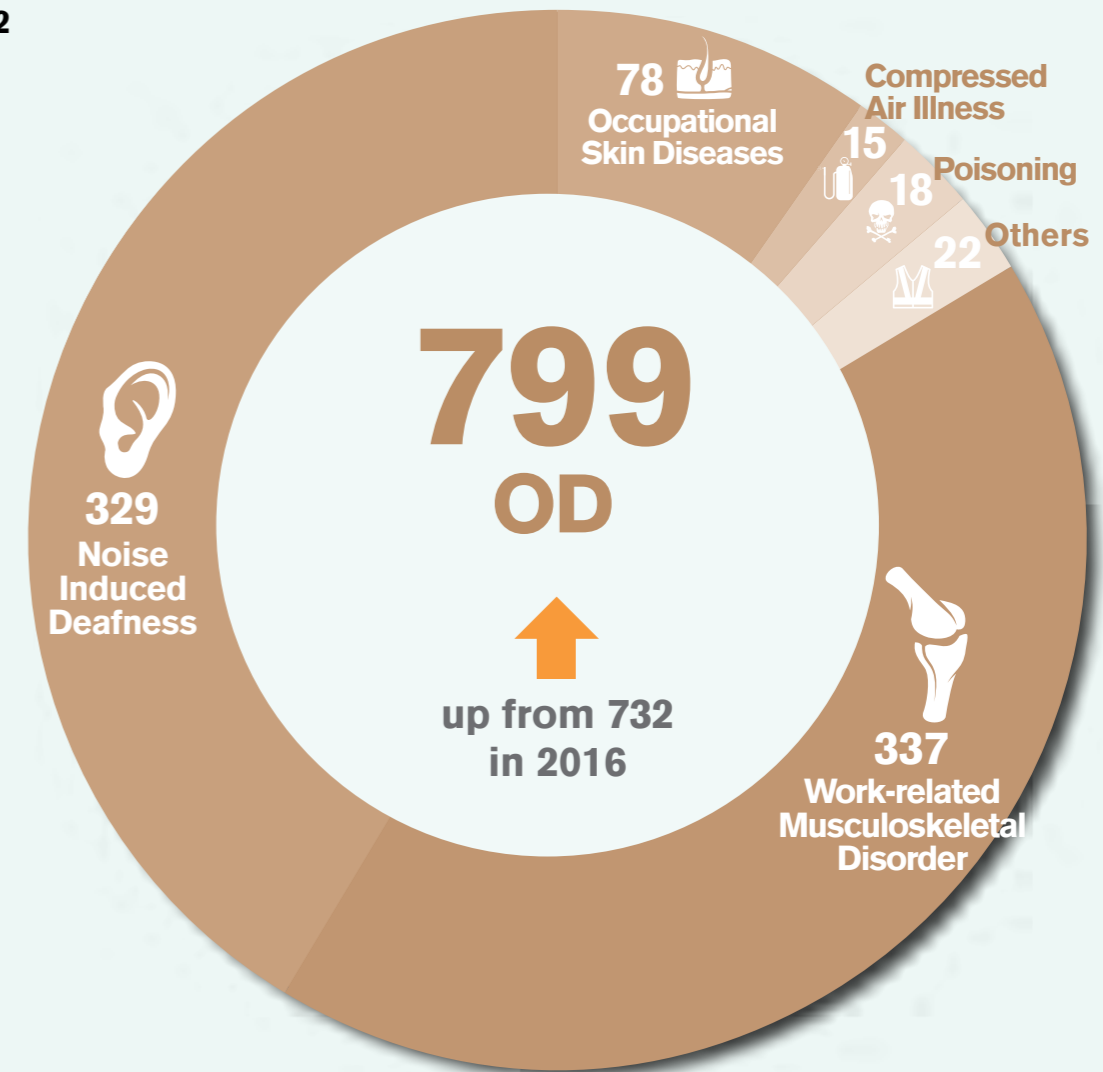
**Chart 1: Fatal Injuries in 2017**

Construction **12**  
 Manufacturing **7**  
 Marine **2**  
 Logistics & Transport **7**  
 Others **14**



**Chart 2: Occupational Disease (OD) Cases in 2017**

Work-Related Musculoskeletal Disorders (WRMSD) **337**  
 Noise-Induced Deafness (NID) **329**  
 Occupational Skin Diseases **78**  
 Poisoning **18**  
 Compressed Air Illness **15**  
 Others **22**



<b>RATE:</b>	<b>1.2 fatal injury rate down from 1.9 in 2016</b>
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**INSIGHTS:** Construction sector continued to be the top contributor with **29%** of total workplace fatal injuries followed by the Transportation & Storage sector and the Manufacturing sector at **17%** each. The top 3 incident types which accounted for 64% of all workplace fatal injuries in 2017 were Falls (Fall from Heights & Slips, Trips & Falls) at 19%, Work-Related Traffic Accidents at 17% and Struck by Moving Objects at 17%.

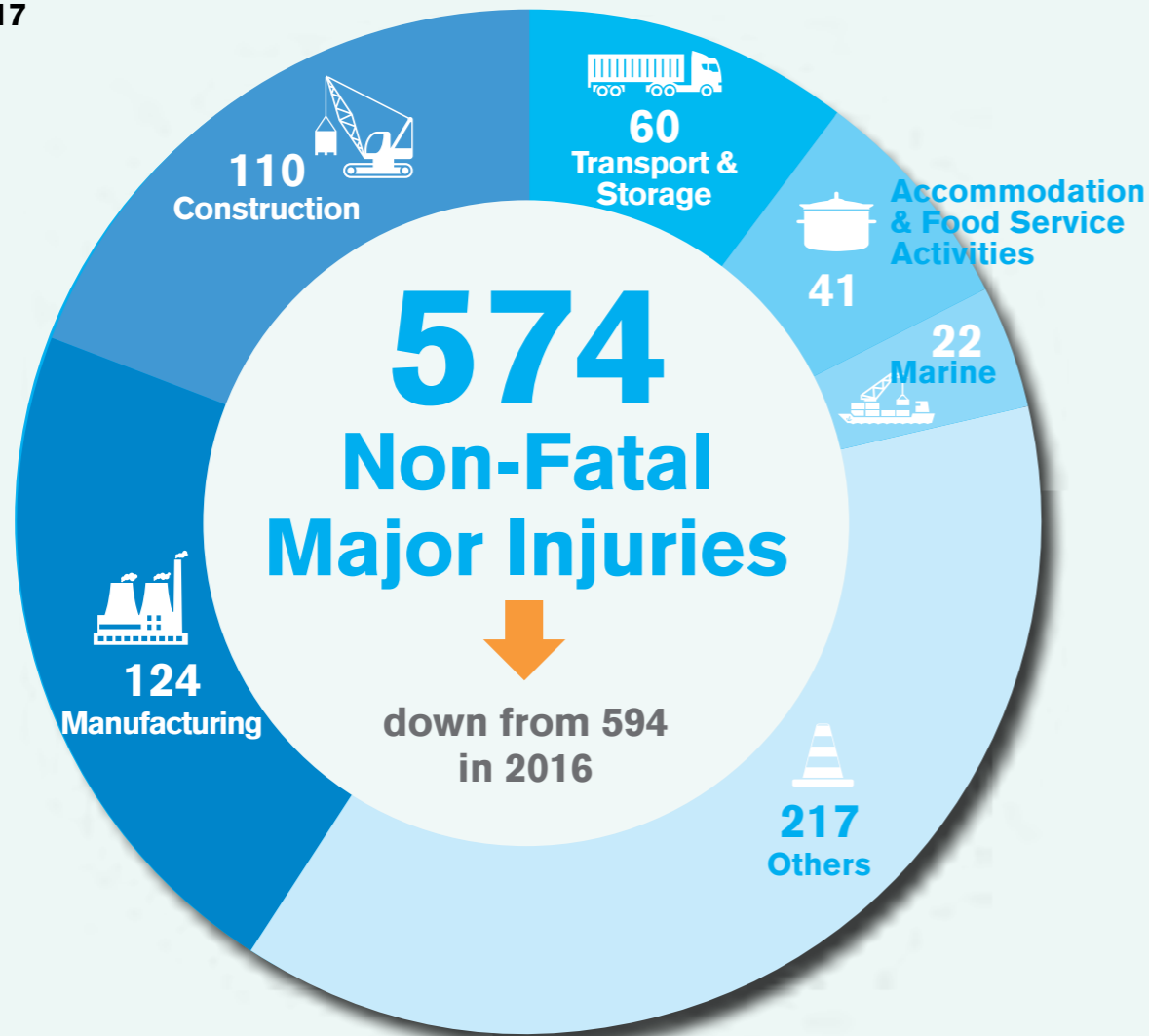
<b>RATE:</b>	<b>23.6 OD rate in 2017 up from 21.5 in 2016</b>
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**INSIGHTS:** The increase in occupational diseases in 2017 was driven by the higher number of Work-related Musculoskeletal Disorders (WRMSD), Noise Induced Deafness (NID) and Occupational Skin Diseases incidences. The number of WRMSD and NID cases accounted for **83%** of all Occupational Diseases this year. The number of Occupational Skin Disease rose by **66%** to 78 cases from the 47 cases in 2016.

# WSH PERFORMANCE

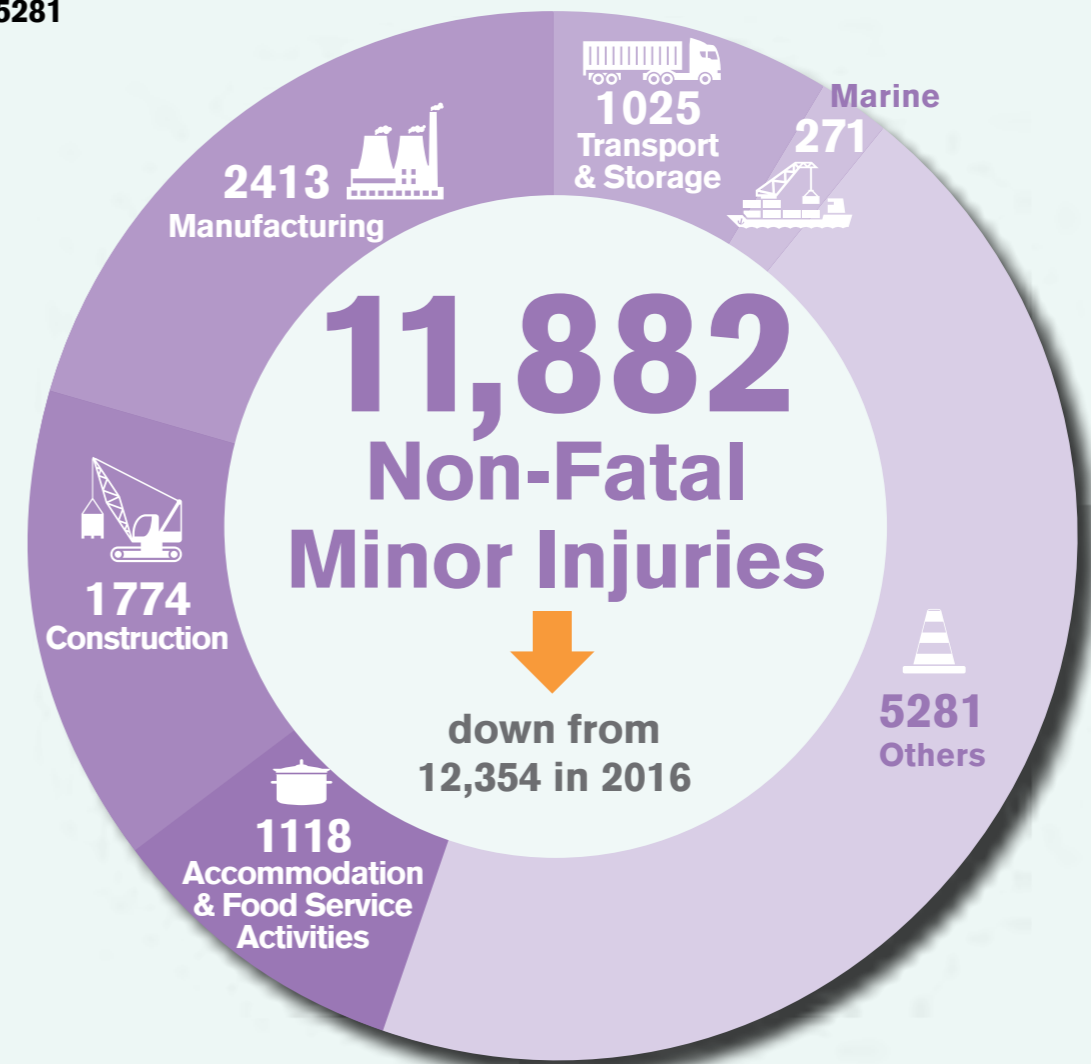
**Chart 3: Major Injuries in 2017**

Construction **110**  
 Manufacturing **124**  
 Marine **22**  
 Transportation and Storage **60**  
 Accommodation and Food Service Activities **41**  
 Others **217**



**Chart 4: Minor Injuries in 2017**

Construction **1774**  
 Manufacturing **2413**  
 Marine **271**  
 Transportation & Storage **1025**  
 Accommodation and Food Services Activities **1118**  
 Others **5281**



<b>RATE:</b>	<b>16.9 major injury rate in 2017 from 17.4 in 2016</b>
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**INSIGHTS:** The Manufacturing sector was the top contributor with **22%** of total workplace major injuries followed by the Construction sector at **19%** and Transportation and Storage sector at **10%**. The top three incident types that accounted for 52% of workplace major injuries were Falls at 42% (Slips, Trips and Falls at 31% and Fall From Heights at 11%), and Caught In/Between Objects at 10%. Crushing, Fractures and Dislocations were the leading types of injury and account for 55% of all workplace major injuries.

<b>RATE:</b>	<b>351 minor injury rate in 2017 down from 363 in 2016</b>
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**INSIGHTS:** The Manufacturing sector was the top contributor with **20%** of total workplace minor injuries followed by Construction sector at **15%** and Accommodation and Food Services Activities sector at **9%**. The top 3 incident types that accounted for 57% of workplace minor injuries were Slips, Trips and Falls at 28%, Struck by Moving Objects at 16% and Cut/Stabbed by Objects at 12%. Cuts and Bruises was the top injury types and contributed 36% of all workplace minor injuries.

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# WSH PERFORMANCE

## WORKPLACE INJURIES 2017

**TABLE 1: NUMBER OF INJURIES AND OCCUPATIONAL DISEASES**

	2016	2017
Overall Injuries	13,014	12,498
Fatal Injuries	66	42
Major Injuries	594	574
Minor Injuries	12,354	11,882
Occupational Diseases	732	799

**TABLE 2: WORK INJURY COMPENSATION REPORT**

	2016	2017
No. of PI and Death cases awarded compensation	4,933	4,662
Total sum of PI and Death compensation awarded (\$\$, Million)	\$88.77 mil	\$94.93 mil
No. of accidents reported with no PI sustained	10,746	10,354

**TABLE 3: KEY WSH INDICATORS PER 100,000 EMPLOYED PERSONS**

	2016	2017
Overall Injury Rate <sup>1</sup>	382	369
Fatal Injuries	1.9	1.2
Major Injuries	17.4	16.9
Minor Injuries	363	351
Accident Frequency Rate <sup>2</sup>	1.6	1.6
Accident Severity Rate <sup>3</sup>	86	69
Occupational Disease Incidence Rate <sup>4</sup>	21.5	23.6

**<sup>1</sup> Workplace Injury Rate:**

$\frac{\text{No. of Fatal and Non-Fatal Workplace Injuries}}{\text{No. of Employed Persons}} \times 100,000$

**<sup>2</sup> Accident Frequency Rate (AFR):**

$\frac{\text{No. of Workplace Accidents Reported}}{\text{No. of Man-hours Worked}} \times 1,000,000$

**<sup>3</sup> Accident Severity Rate (ASR):**

$\frac{\text{No. of Man Days Lost To Workplace Accidents}}{\text{No. of Man-hours Worked}} \times 1,000,000$

**<sup>4</sup> Occupational Disease Incidence Rate:**

$\frac{\text{No. of Occupational Disease Cases}}{\text{No. of Employed Persons}} \times 100,000$



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# KEY HIGHLIGHTS

## XXI WORLD CONGRESS ON SAFETY & HEALTH AT WORK 2017

### OVERVIEW OF CONGRESS

The World Congress for Safety and Health at Work is held every three years. Each time, a different country is the host, selected by the International Labour Organization (ILO) and International Social Security Association (ISSA). It is the world's largest event on safety and health at work.

In 2008, Singapore successfully bid to host the XXI World Congress on Safety and Health at Work 2017 (XXI World Congress). The tripartite event was eventually held from 3 to 6 September 2017 at the Sands Expo and Convention Centre, Marina Bay Sands, and was co-organised by ILO, ISSA and the Ministry of Manpower, Singapore. This was the first time that the event was held in Southeast Asia.

The XXI World Congress objectives were to:

- Provide a forum for the exchange of knowledge, practices and experience between participants with the aim of promoting safety and health at work.
- Reinforce and build networks and alliances while laying the groundwork for cooperation and strengthening relationships among all concerned.
- Provide a platform for the development of knowledge and strategic and practical ideas that can be immediately put into use.

Under the motto "A Global Vision of Prevention" the XXI World Congress discussed three main topics.

### Topic 1: Vision Zero—From vision to reality

Vision Zero aims to inculcate a mindset that all injuries and ill health arising from work are preventable. It calls for a paradigm shift at every level of an organisation, from one of fault-finding, to one that focuses on finding solutions to prevent injuries and ill health. To achieve this would require commitment from all stakeholders across all levels in the workforce.

### Topic 2: Healthy work—Healthy life

Our future world of work is becoming more challenging, complex and fast-paced. Correspondingly, the link between work environment and employees' health is getting stronger. To improve employees' health and ensure that they can work longer and live healthier, the interconnected issues of occupational safety and

employees' health are best managed in a comprehensive and integrated manner. The integrated approach is one where employees and employers work together continuously to sustain, protect and promote each other's safety and health in the workplace.

### Topic 3: People-centred prevention

Protecting employees is the heart of what occupational safety and health (OSH) is about. To build inclusive workplaces for OSH to thrive, components such as demographic changes, ageing, gender, culture and education are important. To support these efforts, sustainable strategies for the promotion, protection and education of our people are critical.

### Key Statistics & Figures



Congress delegates: **3,679 delegates** attended from **119 countries**



Oral and Poster Presenters: **290 abstract oral presenters** and **427 posters** showcased by the international occupational safety and health (OSH) community



Session organisers: more than **43 session organisers** e.g. for 6 technical sessions and 32 symposia



International Safety and Health Exhibition: **1,239 trade visitors** and **507 exhibitors** participated



Technical Tours: **20 tours** conducted to Singapore and Malaysian companies to showcase best practices in WSH



Side events and meetings: **More than 41**

### CONGRESS HIGHLIGHTS

The XXI World Congress on Safety and Health 2017 is officially launched by Prime Minister Mr Lee Hsien Loong on 3 September 2017. Speaking as the Guest-of-Honour at its opening ceremony, PM Lee expressed in his speech that he was glad to see a wide representation of delegates



attending the conference, who came from over 100 countries across 6 continents.

He shared Singapore's WSH journey in the past decade—the impetus of looking hard into Singapore's WSH practices, challenges of Singapore's unique workforce and companies' constraints to managing WSH. To tackle these challenges, Singapore implemented the WSH Act in 2006, formed an International Advisory Panel on WSH and formed the WSH Council in 2008 to foster greater industry ownership of WSH and widen outreach to workers.

As a result of the collective efforts of the government and industry, PM Lee is heartened that Singapore's workplace fatality rate was down to 1.9, in 2016, less than half of what it was in 2004. However, he stressed that this is not the good enough and Singapore will aim to reduce its workplace fatality rate to below 1.0 per 100,000 by 2028.

In order to achieve to achieve this, PM Lee revealed a three-pronged approach:

- Tripartite approach to WSH: Singapore would maintain its tripartite approach where employers, workers and unions, and the government work together to improve WSH.
- Total WSH: Companies to adopt Total WSH which would involve them taking a proactive, comprehensive and integrated assessment of all workplace risks. To help smaller companies implement Total WSH, Singapore is piloting a Total WSH Centre to provide a one-stop service to some 300 companies in Woodlands. If this approach works well, more of these centres will be set up in other industrial zones.
- Technology: Companies to use technology more pervasively to reduce risks of workplace accidents and ill health. To encourage companies to use technology more, MOM will launch a Workplace Safety and Health Technology Challenge to fund companies and research institutes to develop new technological solutions.

PM Lee reiterated the importance of human lives, "every life counts, every worker matters", and is confident that even though "we will have to work hard... we can achieve the new target." He then ended his speech by encouraging all delegates to make good use of their participation at the

World Congress to share and learn from one another, develop new ideas and make meaningful connections.

With 3 keynotes, 6 technical sessions, 32 symposia sessions, 20 technical tours, SafeYouth@Work Congress and Media Competition, International Media Festival for Prevention, International Safety and Health Exhibition and poster exhibition, World Congress 2017 was packed to the brim with something for everyone.

### GLOBAL LEADERS ROUNDTABLE

As part of the opening ceremony, the Global Leaders Roundtable was also conducted. This was the first time the roundtable was introduced to the Congress. The theme of the roundtable was "A Global Vision of Prevention" which was in line with the theme of the World Congress. The format will be structured around the World Congress' three main topics: (1) Vision Zero – from vision to reality; (2) Healthy work, healthy life; and (3) People-centred prevention. The Global Leaders Roundtable provided a platform for global OSH thought leaders, to share experiences and best practices in overcoming challenges in improving OSH outcomes.

The panellists shared their experiences, best practices and challenges faced in translating the vision of preventing all injuries and ill health at work to reality.



▲ WSH Council won three awards for its media productions at the International Media Festival for Prevention.

# KEY HIGHLIGHTS

The International Media Festival for Prevention (IMFP) recognises outstanding media works on WSH from all over the world. It was held within the framework of the World Congress on Safety and Health at Work. This year, its 10th edition, the organisers received 235 submissions from 38 countries, for two categories: films and multimedia. Of these, 38 films and 10 multimedia productions were shortlisted by an international jury.



Nine winners – six from the film category and three from the multimedia category emerged from the shortlist. These winners were awarded with the International Media Award for Prevention during the Special Media Session.

The WSH Council is excited to announce that two of its film productions and one of its multimedia productions had been awarded! The winning productions are “Safety, Your Word Your Life”, “Shoelaces” under the film category, and “Safety and Health with George and Hazel” under the multimedia category.

“Safety, Your Word Your Life” was composed by Ms Boon Hui Lu, whose late grandfather had been a victim of a workplace accident. This was her winning submission to WSH Council’s inaugural songwriting competition in 2016. In the same year, the WSH Council produced “Shoelaces”, a TV commercial, which was inspired by a true event of a worker who had his arm amputated following an accident with a machine. “Safety and Health with George and Hazel” was an e-learning module produced to provide workers with information how to identify and prevent WSH hazards at work.

The shortlisted productions of the IMFP was shown in the IMFP cinema throughout World Congress 2017. Through the IMFP, attendees were inspired by a fascinating range of international media content on WSH, learnt more about production, as well as the targeted use and impact of a variety of different media.

## Keynote 3: People-Centred Prevention

Mr Heng Chiang Gnee, Chairman, WSH Council, was the third keynote speaker at the World Congress 2017. In his speech, Mr Heng shared major milestones of Singapore’s safety and health journey and changes made to Singapore’s WSH framework. As prevention has become the key to ensure workers’ safety and health, people must be the centre of prevention measures. Mr Heng highlighted the importance of having leaders being convinced that human lives are important, “Leadership is key. It is important to set goals and translate them to union and employer level. Though we have many challenges, we can build a culture of care that leads to trust.”

## SAFETYOUTH@WORK DIALOGUE

127 youths from 29 countries, aged 18 to 24 years old, took part in the SafeYouth@Work dialogue session. Youths explored case studies and experiences of young workers, and designed prototypes for OSH initiatives to create safer working conditions. In her speech, Second Minister for Manpower, Josephine Teo, highlighted the importance of the SafeYouth@Work Congress as a useful platform to nurture young leaders around the world to support OSH and an excellent opportunity for them to share ideas and renew their commitment to serve their community to advocate safety for young workers.



## Singapore Night

Day 3 of the World Congress ended on a high with Singapore Night. Delegates from 100 countries experienced the warmth of Singapore’s hospitality. They enjoyed uniquely Singaporean food that earned Singapore its reputation of being a gourmet haven and were entertained by renowned local musicians throughout the evening.

## Closing Ceremony

All delegates gathered at the Grand Sands Ballroom for the closing ceremony at World Congress 2017. In his inspirational speech, Dr William Tan, a physician, neuroscientist and paralympian, rallied delegates to dream BIG and persevere in their journey towards Vision Zero. Representatives from SafeYouth@Work Congress also shared their discussion’s outcome with the delegates.

Before the handover ceremony, Minister for Manpower, Mr Lim Swee Say, highlighted three areas that Singapore should continue working on to improve its OSH. These areas are:

- Continue to strengthen commitment amongst all stakeholders (i.e., workers, employers and government) because everyone has a role to play for all our workers are to return home safe and healthy every day.
- Second, the integration of workplace safety with workforce health, into “Total Workplace Safety and Health”. We need to safeguard our workers’ health to prevent accidents and occupational diseases tomorrow.
- Third, we have to be more people-centred. This means moving away from a one-size-fits-all approach in the prevention of workplace accidents and ill health.

The Congress ended up on a high with Singapore handing over to Canada the baton to be the host of the XXII World Congress on Safety and Health at Work in 2020.

## Technical Tours

The World Congress also offered local and international delegates the opportunity to visit a total of 20 companies and organisations for a technical tour focusing on safety and health at work. These tours were lined up as part of the Congress programme to enrich the delegates’ appreciation of the key industries in Singapore and OSH developments in the region. 19 local technical tours took place on the afternoon of 6 September 2017, the last day of the Congress, which saw more than 300 participants. The companies and organisations visited were:

1. 3M Singapore
2. Bok Seng Logistics
3. Changi Airport Group
4. DuPont Singapore
5. Galmon
6. JurongHealth Campus
7. Keppel Offshore and Marine
8. Woodlands Station Box
9. Marina Bay Sands
10. Nestlé Singapore
11. Paya Lebar Quarter
12. Pfizer Global Supply
13. PSA Corporation
14. Changi Water Reclamation Plant
15. SATS
16. Sembcorp Marine
17. Tower Transit Group
18. Project Jewel
19. Yang Kee Logistics

The overseas technical tour, which took place on 7 September 2017, saw a group of 29 go on a day trip to SOCSO Rehabilitation Centre (Melaka).

Delegates were grateful for the immersion experience and the insights gained. Many were heartened by the hospitality of the host companies and impressed by their commitment towards WSH. Some feedback from participating delegates:

- “Two thumbs up for the informative tour. Several practices are very good to implement.”
- “Very well hosted by the project team who showed their commitment on Vision Zero.”
- “Great display of good safety culture within the organisation.”
- “Great effort by the team. Our pleasure to be here for the visit. Keep up the good work guys!”
- “The host was friendly, knowledgeable and made us feel at home. Good job!”
- “Highlight of WCSH2017!”

Some photographs capturing memorable moments of the tours:



# KEY HIGHLIGHTS

## CONGRESS SIDE EVENTS

### SPECIAL SESSION OF THE ASEAN LABOUR MINISTERS ON OSH

A Special Session of ASEAN Labour Ministers on OSH was held in conjunction with World Congress. The intent was to adopt and sign a Joint Statement to showcase ASEAN's development and commitment on OSH

It was well attended by Labour Ministers from ASEAN Member States, ASEAN Secretary-General, Director-General of the International Labour Organisation (ILO) and President of the International Social Security Association (ISSA).



▲ ASEAN Labour Ministers, ILO and ISSA taking a group photo with the trademark ASEAN handshake.



▲ Er. Ho Siong Hin handing over ASEAN-OSHNET baton to Myanmar counterpart.



▲ "Singapore is committed to work with ASEAN member states to enhance OSH capabilities. Specific areas would be training for OSH inspectors, building companies' expertise in risk management through bizSAFE, and developing accreditation frameworks for OSH training providers." – Mr Sam Tan, Minister of State for Manpower in his 3-minute intervention to support Joint Statement.

### FINNISH EVENT: HIGH-LEVEL SPECIAL EVENT ON FUTURE FORMS OF WORK AND IMPACT ON OCCUPATIONAL SAFETY AND HEALTH



Minister of State, Mr Sam Tan, presented on 'Advancing Workplace Safety and Health in Singapore' during the Global Dialogue on the Future Forms of Work and Impact on Occupational Safety and Health - one of the ILO's Centenary Initiatives. The event looked at how work would be done in the future and the risk impact to safety and health.



▲ Moderator, Speakers and "Opponents" of the event. From left: Minister Pirkko Mattila, Mr Michel Servoz, Dr Jukka Takala, Mr Guy Ryder, Dr Christa Sedlatschek, Dr Kurt Straif, Vice Minister Sun Huashan, Prof Sergio Iavicoli, Mr Hans-Horst Konkolewski.

### EXECUTIVE SUMMIT: THE TURNING POINT

Held in the morning of 3 September 2017, the Executive Summit organised by the US National Safety Council (NSC), and US ORCHSE Strategies LLC, supported by Ministry of Manpower (MOM), was attended by almost 70 global industry leaders, and provided a unique platform for leaders to collaborate and set the tone for the World Congress.



The Executive Summit was an opportunity for Operations and EHS leaders from all industries and regions to answer discussion questions ranging from human performance to technological innovation, and allow the industry to tap on the panels' wealth of knowledge and experience for purposes of sharing ideas and insights and possible adoption/application in our own similar programmes in Singapore.

Mr Chan Yew Kwong closed off the session with well-wishes for all delegates attending the World Congress and hope for more collaborations with all partners.

### ASIA PACIFIC OHS TRAINING CONVENTION 2017

The Asia Pacific Occupational Health and Safety (OHS) Training Convention 2017, organised by the Singapore Institution of Safety Officers (SISO), and supported by the Ministry of Manpower and the Workplace Safety and Health Council, was held on 2 September 2017 at The Fullerton Hotel. The event was graced by Mr Heng Chee How, Deputy Secretary General, National Trades Union Congress and Senior Minister of State, Prime Minister's Office.



The key highlights of the convention's theme, "Up skilling OHS Trainers for Future Workplace", with the focus on OSH training landscape, were effectively articulated and expounded by prominent speakers from the UK, Australia, Canada, Germany and Singapore. Many professed that the Convention speakers were excellent and had enlightened them to look at training from a wider horizon. Some key topics covered included Micro-Learning, Reflective Learning, and Personal Knowledge Mastery. Esteemed speakers, amongst the rest, included; Dr. Ulrike Bollmann from the German Social Accident Insurance (DGUV) and Ms. Teresa Budworth, the Chief Executive of NEBOSH. Mr. Gilbert Tan, Chief Executive Officer of e2i, shared his thoughts on the "Future Landscape of Learning in Singapore". More than 110 participants attended the Convention which was well received.

### THE SINGAPORE DECLARATION ON WORK-RELATED TRAVEL SAFETY, HEALTH AND SECURITY

The International SOS Foundation, supported by the Ministry of Manpower (MOM) Singapore, launched a declaration during a Summit Meeting on 3 September 2017, on the opening of the XXI World Congress on Safety and Health at Work 2017.



Officiated by Mr Heng Chiang Gnee, Chairman of the WSH Council, as Guest of Honour, close to 200 representatives from organisations and institutions were present to sign the declaration as a demonstration of support to the principles of the declaration. As part of their Duty of Care initiatives, the declaration articulates the principles of risk prevention with regard to work-related travel safety, health and security for mobile employees.



# KEY HIGHLIGHTS

## WSH COUNCIL SIGNS THE SINGAPORE ACCORD

The WSH Council also signed the Singapore Accord on the Standards of Occupational Health and Safety (OHS) Professionals at the Singapore Accord Ceremony held on 3 September 2017 at the Sands Expo and Convention Centre. Together with 44 other OHS-related organisations from 16 countries, WSH Council committed to adopting a global framework to sharpen the capabilities of OHS professionals and practitioners. These professionals and practitioners can then better guide and lead the creation of healthier and safer workplaces.

Mr Chan Chun Sing, Secretary-General, National Trades Union Congress and Minister, Prime Minister's Office, graced the occasion as the Guest-of-Honour. While recognising that Singapore had done "reasonably well" in workplace safety, Mr Chan felt that it should "aspire to a higher standard". He exhorted the safety community to band together and share knowledge and professional expertise to improve OHS standards. This could facilitate the "fast learning cycle", where information on an incident could be quickly shared with people on the ground.



## ASIA-PACIFIC OCCUPATIONAL SAFETY AND HEALTH ORGANISATION (APOSHO) 32 CONFERENCE

APOSHO is an international body comprising non-profit professional organisations devoted to the prevention of occupational accidents and diseases. The APOSHO 32 Conference was jointly organised by the National Safety Council (Singapore) and the Singapore Institution of Safety Officers, with strong support from MOM and WSHC on 8 September 2017 at the Novotel Singapore Clarke Quay. Mr Sam Tan, MOS (Manpower), the Guest Of Honour, highlighted the



Global Vision Zero Campaign initiated by the International Social Security Association. He said that it was a very meaningful and important global campaign that Singapore signed up as a pioneer batch of its partners. MOS Sam Tan stressed that Vision Zero required the commitment of all stakeholders and urged everyone to support this significant global movement. The conference attracted 158 delegates from 19 countries to share the latest developments and insights in relation to Occupational Safety and Health (OSH). It also facilitated networking opportunities for the participating OSH professionals.

Mr Winston Yew, Deputy Director (Industry Capability Building), gave a presentation on "bizSAFE – An Enterprise WSH Capability Building Programme". He presented on the bizSAFE programme that enabled businesses, especially SMEs to manage their operational and organisational risks for the safety, health and well-being of their workers. This helps to bring about higher productivity and better business opportunities for these companies.

Mr Winston Yew also participated in the dialogue session with the theme "At the Forefront of OSH Progression". During the dialogue session, he shared some learning points on how cost-conscious employers could be encouraged to invest in OSH, and also how psychosocial issues were addressed.

## SHARING OF DESIGN FOR SAFETY WITH HONG KONG'S OCCUPATIONAL SAFETY AND HEALTH COUNCIL (OSHC)

As part of their post-World Congress' Technical Visit, a 35 member-delegation from Hong Kong's OSHC had a sharing session on Design for Safety with MOM and WSHC on 8 September 2017. Ms Bonnie Yau, Executive Director of OSHC, headed the delegation with representatives from the Transport and Housing Bureau, various Business Associations and Professional Bodies of Hong Kong.

Ms Ada Fung, Deputy Director (Development and Construction) of Housing Department Hong Kong, shared their experience in implementing safety design approach in Hong Kong's housing projects. Ms Ada Fung highlighted that the Hong Kong's approach is to drive major developers in the construction



industry to self-regulate and to promote best practices. The OSH Inspectorate shared on the implementation of Design for Safety (DfS) in Singapore while WSH Council Office shared on the strategies and promotional efforts to engage the key stakeholders. The Session ended with a Q&A session, which had lively and positive exchanges on the implementation and enforcement of DfS between MOM and HK's OSHC. The lively exchange continued during the networking buffet lunch at MOMSC lounge.

## ASIAN OSH RESEARCH INSTITUTES (AOSHRI) PROGRESS UPDATE MEETING

Heads and representatives from 10 occupational safety and health (OSH) research institutes in Asia met on 7 September 2017. During the meeting, members discussed the plan and details to formalise the network through the signing of a Memorandum of Understanding (MOU).

The members also spent half a day to brainstorm the plans for three identified multi-centre research collaboration studies. The projects are on Construction safety, psychosocial health and under-reporting.

A/Prof Jason Lee, Head, Human Performance Laboratory, Defence Medical & Environmental Research Institute, DSO National Laboratories/ Yong Loo Lin School of Medicine, National University of Singapore was invited to share the latest research related to heat stress to the members.

\* **The Asian Occupational Safety and Health Research Institutes (AOSHRI)** is a meeting of the heads of OSH research institutes from 13 economies in Asia. These economies include Brunei, Cambodia, China, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Sri Lanka, Taiwan, Thailand, Vietnam.



▲ Dr Gan Siok Lin, Executive Director, WSHI facilitating the discussion on the topic of psychosocial health.

▲ Dr Yasuo Toyosawa, Director General, NIOSH, Japan facilitating the discussion on the topic of Construction safety.

▲ Dr Nirmalie Champika Amarasinghe, Director General, NIOSH, Sri Lanka facilitating the discussion on the topic of under-reporting.



▲ (4th from right) Dr Gan Siok Lin, Chairperson, AOSHRI and (3rd from left) Dr Nirmalie Champika Amarasinghe, Secretariat, AOSHRI with AOSHRI members and meeting participants.

# KEY HIGHLIGHTS

## OSH INSPECTION (TECHNOLOGY) APPRECIATION WORKSHOP FOR ASEAN-OSHNET

OSH Inspectorate (OSHI) organised an OSH Inspection (Technology) Appreciation Workshop for the Congress's delegates from our ASEAN-OSHNET Member States. The workshop was conducted on 6 September 2017 at MOMSC. A total of 31 delegates from government agencies that oversee OSH in seven ASEAN countries attended the workshop.

The objective of the workshop is to let our ASEAN counterparts have an appreciation of how OSHD leverages on technology to enhance our enforcement capabilities and improve effectiveness of our enforcement activities.



## 15TH INTERNATIONAL ASSOCIATION OF LABOUR INSPECTION (IALI) CONGRESS AND GENERAL ASSEMBLY



▲ Group photo of IALI Congress participants.

The 15th IALI Congress and General Assembly was held on 7 - 8 September 2017 at Village Hotel Changi. Heads and representatives from close to 30 countries and international organisations attended this two day event.

It was a comprehensive and packed programme where many distinguished international speakers shared on their countries' experiences on labour inspection. There was also an interactive workshop where ideas and opinions were sought to improve on IALI's International

Benchmarking on OSH Regulations (IBOR). Developed internally within OSHD with inputs from HSE (UK), IBOR has been approved during the IALI General Congress and will be IALI's flagship programme.

The IALI General Assembly was held on Day 2 which included the election of the new IALI Executive Committee. The proposals put forth by the IALI EC had been unanimously approved. At the elections, DOSH was re-elected as Secretary General for another term. Congratulations to DOSH!



▲ GOH MOS Sam Tan giving the opening speech IBOR workshop.



▲ The first day of the event ended with a welcome reception at Civil Service Club, Changi. Participants were treated to local delights.



▲ Thank you to all fellow colleagues who worked hard to ensure the smooth running of this event.



▲ Reports by President, Secretary General and Treasurer Voting by IALI members.



▲ A newly elected IALI Executive Committee (2017 - 2020).



▲ Organising Committee (Miraculously, we survived!).

# KEY HIGHLIGHTS

## G20 EMPLOYMENT WORKING GROUP AND OSH EXPERTS NETWORK CONSULTATIVE MEETING

The G20 OSH Experts Network Consultative Meeting was held on 5 September 2017 during the XXI World Congress on Safety and Health 2017 in Singapore. The meeting was chaired by the United States Department of Labor and the Turkish Ministry of Labor and Social Security (both co-chairs of the G20 subgroup on occupational safety and health), and by Federal Ministry of Labour and Social Affairs, Germany (holding the G20 Employment Working Group (EWG) presidency 2017). Representatives from 17 countries and 8 organisations attended the meeting. Mr Chan Yew Kwong, Director (OSH Inspectorate) and Er Mohd Ismadi, Director (OSH Specialist) represented Singapore. The meeting provided a useful opportunity to bring together members of the EWG subgroup, OSH experts and others to review the development of work under the OSH Network and discuss areas for collaboration.



## SAFETYOUTH@WORK CONGRESS

The International Labour Organization (ILO) collaborated with the Ministry of Manpower (MOM) to organise a dedicated SafeYouth@Work Congress as part of the XXI World Congress on Safety and Health at Work (WCSH) 2017 from 2 to 6 September 17. The SafeYouth@Work Congress sought to highlight the critical need for the awareness of safety and health issues for youths in the workplace and identifies opportunities to shape the future of Occupational Safety and Health (OSH) with the youths.

Over 120 youth champions from all over the world participated in the SafeYouth@Work Congress and developed key elements of Action Plan on OSH for Youth

(APOY). This programme involves a design-thinking based approach to problem solving and creating new outcomes. The process encourages experimentation, innovation, discovery and community cohesion. The Youths were given a theme related to OSH and they had to come up with their own prototyped solutions while interacting with other fellow participants.

Throughout the SafeYouth@Work Congress, the youth champions also gained key and new insights on safety for young workers which serve as invaluable learning points for them to advocate OSH issues ahead in their home countries. Their prototyped solutions were presented on 5 September 2017 during the SafeYouth@Work Dialogue during the World Congress.



## SAFETYOUTH@WORK CONGRESS



### Through the Lens of a Participant

SITI HAJAR SALIM | Congress participant



▲ DOSH giving the youths an opening speech at Temasek Polytechnic.



▲ Octopus Clustering and Design Thinking.

▲ Presenting the prototype to the panel of judges.

A total of 125 youths from 29 countries participated in the SafeYouth@Work Congress in Singapore from 2 to 6 September 2017. Chosen by ILO, the Youth Champions came from diverse background to discuss and voice-out on issues relating to the safety and health of young people at work. The following is the experience of the Congress through congress participant Ms Siti Hajar Salim.

The youths were divided into small teams to brainstorm ideas and interviewed delegates in the hallway on these ideas seeking to improve WSH for youths. The Youths worked at it tirelessly and were elated to see their final product! A big group consensus to the ideas was gathered, with the most feasible and impactful ideas developed into prototypes. The prototypes were fine-tuned with guidance from the facilitators and six prototypes were chosen for documentation by a panel of judges from ILO.

The Youths were also joined by Director-General of ILO, Mr Guy Ryder, who shared with them candidly about his experience as a young man in his first job. Only a few days into his job, he got into an accident which resulted in the amputation of his finger. He was rushed to the hospital and luckily, his finger got reinstated. As a young worker, he was not aware of safety and health issues at the workplace. He mentioned that there is no prevention without awareness on this issue. It was a reflection point for all of the participants.

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# KEY HIGHLIGHTS



It was an interactive session with the delegates providing their valuable inputs on the two prototypes presented by the Youth Champions teams. Towards the end of the session, all the delegates were made more aware of the issues and challenges faced by the youths.

At the SafeYouth@Work Media Competition, five talented youths showcased their individual creativity in the form of music, photographs and stories, highlighting the plight of youths at work.



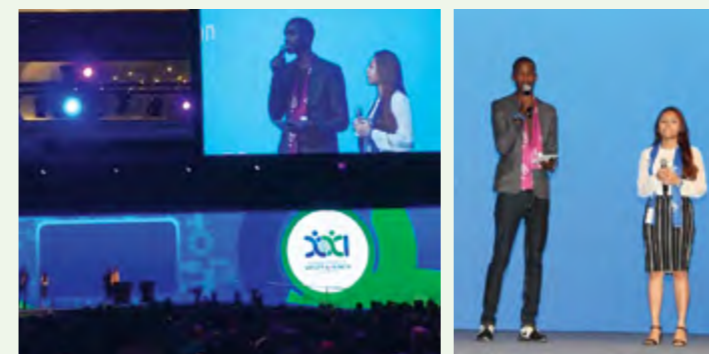
The main highlight was the SafeYouth@Work Dialogue which brought together 800 delegates with the youths. During the dialogue, Ms Josephine Teo announced the launch of Singapore WSH Youth Champions Programme, a stepped-up effort to enhance safety awareness in the wider community through cultivating individuals who are passionate about safety and health.



▲ Group Photo with Mr Guy Ryder.



The Youth Champions were grateful to the WICD Team, headed by D(WIC), Ms Kee Ee Wah as well as ILO for the platform where their voices can be heard and debated. The memories made and the friendships forged were valuable and cherished by the 2000 delegates from all over the world, some of whom had to endure an arduous 30-hour flight back to their homes.



In Singapore, where WSH is an integral part of the work culture, the youths gained important insights into the practices and cultures of distant lands, giving them valuable experience and ideas on how to further improve health and safety in all workplaces as well as to become better advocates for OSH issues. The foreign delegates had a similar take away, departing from the conference, eager to be better ambassador of a global vision for OSH issues.

Their prototyped solutions were presented on 5 September 2017 during the SafeYouth@Work Dialogue during the World Congress.



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## NATIONAL WORKPLACE SAFETY AND HEALTH CAMPAIGN AND FAMILY CARNIVAL 2017

The National Workplace Safety and Health Campaign and Family Carnival was launched on Saturday, 22 April 2017 at the OCBC Square at The Singapore Sports Hub.

Jointly organised by the Workplace Safety and Health (WSH) Council, National Trades Union Congress (NTUC) and Singapore National Employers Federation (SNEF), and supported by Ministry of Manpower (MOM) and Workplace Safety and Health Institute (WSHI), the annual National WSH Campaign sets the stage for the WSH Council's year-long outreach efforts to promote safety and health in workplaces.

Reaching out to more than 100,000 employers and employees across all industries, the year's campaign focused on three key hotspots – Falls, On-site vehicular hazards and Amputations.

The family carnival was made up of three different zones to identify the respective clusters of activity and focus:

### ■ Safety and Health at Work

This zone showcased various exhibits relating to safety and health at work. Exhibits such as Safety Starts with Me Competition showcase, "Look. Think. Do." exhibit panels, "George and Hazel" and "Ken and Friends" e-learning counters and Job Re-design panels by WSH Council were displayed.

### ■ Safe and Healthy Lifestyle

In collaboration with Health Promotion Board (HPB), this zone showcased exhibits relating to safe and healthy lifestyle. Exhibits such as War on Diabetes, iQuit and mini game activities were displayed.

### ■ Target Zero Falls

In support of the launch of the first phase of the year's Campaign on preventing falls, this zone included exhibits and demonstrations on keeping oneself safe while performing work at heights across various industries.

Guest-of-Honour, National Trades Union Congress Secretary-General Chan Chun Sing highlighted that even experienced workers are at risk of getting into accidents as complacency may set in over time, and hence, the need for constant reminders about workplace safety and health.

WSH Council Chairman, Mr Heng Chiang Gnee hoped that the family carnival would bring WSH awareness to families and inspire everyone to take actions to keep themselves and their families safe and healthy every day.



▲ Large turnout at the National WSH Campaign.



▲ Young participants of the campaign seen enjoying themselves.

Mr Heng also shared that to commemorate first phase of the campaign, "Target Zero Falls", WSH Council had produced three videos. The videos showcased scenarios in various industry sectors such as a worker spotting a spillage on the kitchen floor, among others. Through the videos, WSH Council hoped to educate both management and workers on the measures necessary to prevent falls from heights, slips, trips and falls.



▲ WSH Council has produced 3 videos as part of the campaign's first phase.



▲ WSH Council Chairman giving his welcome address speech during the campaign.



▲ Mr Chan Chun Sing, NTUC Secretary-General, graced the event.

# KEY HIGHLIGHTS

## LAUNCH OF DRIVE SAFE, WORK SAFE CAMPAIGN (SEPTEMBER – DECEMBER 2017)

With the support from various industry associations and union, the second phase of the National WSH Campaign – Drive Safe, Work Safe, was launched by MOS Sam Tan on 14 September 2017. The three-month long campaign aimed to highlight the importance of onsite traffic management as well as safe driving on roads.

At the launch, MOS Tan emphasised the need to increase awareness on the key risks associated with vehicular movements in workplaces. One of these risks is blind spots involving heavy vehicles. The message of responsibility was intended for both drivers as well as pedestrians. To highlight this issue, WSH Council has produced a video specially for this campaign. To encourage a more pervasive use of technology to improve vehicular safety in workplaces, MOM launched the “Managing Onsite Vehicular Safety (MOVEs)” programme which assist companies to better manage onsite traffic safety.

In a show of his commitment to the cause, MOS Tan pressed on in the walkabout on the traffic safety management practices and technology programme implemented at NatSteel despite the downpour that day. “Safety continues, be it rain or shine” shared MOS Tan as he walked through the site accompanied by the senior management of NatSteel. He then took a ride on a truck trailer from NatSteel to a construction site in Woodlands for a delivery trip to better understand a heavy vehicle driver’s challenges from loading practices to driving on the roads.

Following the launch, which received wide press coverage, senior management of companies were challenged to take charge of their own potential vehicular hazards or to leverage on WSH briefings to their workers to highlight potential workplace traffic risks during designated campaign periods which will coincide with sponsored editorials where vehicular safety will also be featured to spread the message more effectively.



▲ MOS Tan emphasising on the need to increase awareness in all ranks of the company in the campaign for vehicular safety.



▲ The industry can look forward to the 3rd phase of the National WSH Campaign – Safe Hands Campaign, which will be launched in 2018.

# KEY HIGHLIGHTS

## ENHANCEMENT OF bizSAFE FRAMEWORK TO MANAGE SECURITY RISKS

### Safe, Healthy and Secure Workplaces

The threat of terrorism in Singapore is real. When a terror attack occurs in a workplace, business operations will be disrupted, employees may stop reporting to work, and lives may be lost. Security agencies have stepped up efforts to better protect Singapore, but every stakeholder needs to play a part. Companies need to prepare the workforce, protect the workplace and partner the community.

The SGSecure national movement is our community and workforce's response to terror threats. It aims to sensitise, train and mobilise the workforce to play a part to prevent and deal with a terrorist attack. In the aftermath, we need to ensure the workforce remains cohesive, businesses recover quickly, and return to normalcy as soon as possible.

At the National Security Conference held on 26 September 2017, Deputy Prime Minister Teo Chee Hean announced that the Government will scale up efforts to enhance readiness of workplaces through the SGSecure at Workplaces Programme. As part of the programme, the bizSAFE framework was enhanced to cover identifying and managing security risks posed by terror threats. This will strengthen the vigilance and resilience of workplaces to withstand terror attacks.

DPM Teo also stressed the importance of workplaces being prepared, citing the example of how rehearsed evacuation drills helped the majority of Morgan Stanley's 2,600 employees to get out safely from the South Tower during the World Trade Centre attacks in 2001. The theme of workplaces being prepared with response plans and frequent drills was reiterated during the panel discussion moderated by DS(D) Kok Ping Soon, and comprising participants from the Singapore Police Force (SPF), Association of Small and Medium Enterprises (ASME) and business representatives.



### Risk Management to Include Security Risks Posed by Terror Threats at Workplaces

To assist companies to build capabilities to become SGSecure-ready, MOM, the Ministry of Home Affairs (MHA), SkillsFuture Singapore and the WSH Council have incorporated SGSecure elements into the enhanced bizSAFE framework.

With effect from 26 September 2017, managing of terror threats will be part of requirements in the bizSAFE level 1 and level 2 courses and bizSAFE level 3 Risk Management Audit. The expected outcomes and company's deliverables at each level are illustrated below:

bizSAFE Level	Expected Outcome	bizSAFE Company's Deliverable(s)
<b>Level 1</b> Workshop for CEO/Top Management	CEO/Top Management to commit to managing terror risks	Course participants to include commitment to manage terror risks at their workplaces when drafting organisational WSH Policy.
<b>Level 2</b> Develop a Risk Management Implementation Plan	Organisational Risk Management (RM) Plan to cover terror risks at the workplace	Course participant/RM champion shall conduct risk assessment to identify potential workplace terror threats, and include the management of these threats, in the workplace Risk Management Implementation Plan.
<b>Level 3</b> Risk Management Audit	Audited RM Implementation Plan to address terror threats	i. To incorporate into organisational WSH Policy the commitment to manage and respond to terror threats. ii. To conduct Risk Assessment to identify potential workplace terror threats. iii. To address identified workplace terror threats with corresponding control/mitigating measures in RM Implementation Plan. iv. To appoint an SGSecure Representative v. To build employees' awareness of key SGSecure Tenets: <ol style="list-style-type: none"> <li>"Run, Hide, Tell";</li> <li>"Press, Tie, Tell";</li> <li>Emergency evacuation routes;</li> <li>Hiding locations in the workplace; and</li> <li>What to do during a lockdown procedure.</li> </ol>

#### Enhancements include:

- Sensitising business leaders attending bizSAFE level 1 courses to security risks posed by terror threats.
  - They will be expected to incorporate security elements in their company's WSH policy.
- Helping risk management champions attending bizSAFE level 2 courses gain competency in identifying and addressing terror threats.
  - They will gain knowledge on assessing possible terror scenarios, identifying protective security measures to mitigate terror risks and preparing contingency response plans for a terror attack.
- Auditing enhanced risk management plans as part of bizSAFE level 3 requirements.
  - Risk management plans will have to consider terror risks and put mitigating measures in place.

# KEY HIGHLIGHTS

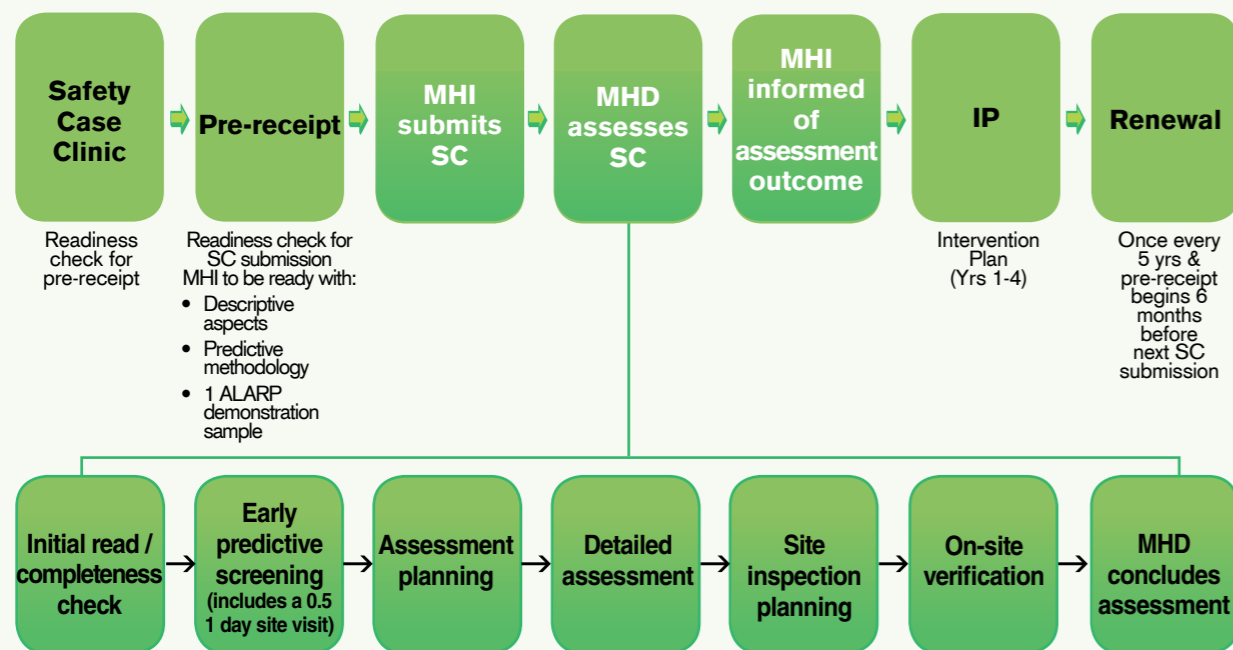
## SAFETY CASE IMPLEMENTATION

With the WSH (Major Hazard Installations) Regulations that came into effect on 1 September 2017, Major Hazard Installations (MHIs) are required to submit safety cases once every five years, to demonstrate that the risks of major accident hazards have been reduced to ALARP (As Low As Reasonably Practicable).

To help MHIs prepare their safety cases, MHD held individual safety case clinics with MHIs to facilitate their safety case development.

Pre-receipt meetings were conducted with each MHI at least six months prior to their submission deadlines. At the pre-receipt meetings, the principles and approaches adopted by each MHI in the safety case development were discussed, including methodologies for predictive aspects and ALARP demonstration. The close engagement of MHIs ensured that the safety cases were developed in line with MHD's expectations.

### MHD's safety case work process



Following the submissions, MHD conducted early predictive screening checks on the safety cases. This included desktop reviews and site visits to ascertain that the risk methodology and analysis were appropriate and comprehensive. This enabled MHD to determine whether the predictive aspects of the safety cases had been adequately addressed, for progression to detailed technical assessment.

The detailed safety case assessments for two MHIs were completed in early 2018 and involved a thorough review of the safety cases for aspects such as predictive risk assessment, process safety, mechanical integrity, electrical, control & instrumentation, human factors and ALARP demonstration. Site inspections were carried out to verify that safety-critical control measures had been implemented as described in the safety cases. Based on the assessments, MHD will develop a list of follow-up actions for each MHI over 4-5 years until the next submission cycle.



▲ Ms. Eunice Chin, Head of HSEQ, Evonik submitting the Safety Case to D(MHD).

## RAISING SAFETY STANDARDS OF LORRY CRANE OPERATION THROUGH TECHNOLOGY

Lorry cranes are widely used in the industry due to its versatility, particularly in the logistic, landscaping and construction sectors. Today, there are more than 3500 lorry cranes operating in Singapore. Lifting operations involving such cranes are inherently high risk activity and improper use of equipment and unsafe work practices can result in untoward events such as accidents and injuries. Over the last few years, it was observed that there was uptrend in the number of incidents involving lorry cranes. To address the issue, the National Crane Safety Taskforce under the Workplace Safety and Health Council and the Ministry of Manpower jointly formed a Lorry Crane Workgroup to look into measures to prevent such incidents.



Among the recommendations by the Workgroup was to encourage the adoption of technology to raise the safety of lorry crane operations. In particular, the Workgroup proposed for lorry cranes to be fitted with Stability Control System (SCS). SCS was first introduced in Europe in 2011 as a means to ensure stability of the lorry crane during lifting operation. The system monitors the position of the outriggers and calculate in real time, the safe working envelope and consequently, limit the operation of the crane within the safe zone. This could prevent the lorry crane from being overloaded and toppling.



# KEY HIGHLIGHTS

SCS is a relatively new technology and is currently available only for the newer generations of lorry cranes by the manufacturers. To benefit the lorry crane community from the technology, the Lorry Crane Working Group had worked with the industry partners to develop local solutions to retrofit of existing lorry cranes with SCS. The local system, similarly, will be able to detect the positions of the outriggers and will determine the lifting capacity for safe lifting.

At the Crane Safety Symposium held on 24 July 2017, Mr. Mohamed Abdul Akbar, chairman of the National Crane Safety Taskforce, and Er Ismadi Mohd, Director OSH Specialist, led a study group to witness a demonstration of the prototype.



## MHD'S COLLABORATION WITH UK HSE

The year-long collaborative project with UK HSE began in June 2017, with the aim of leveraging on UK HSE expertise for technical support and guidance in MHD's implementation of the safety case regime.

During the project, UK HSE predictive specialist Dr Mike Wardman and Process Safety Specialist Inspector Mr Phil Gorman were attached to MHD from 6 - 12 July and 28 September - 17 October.

For the first attachment, Dr Wardman and Mr Gorman guided MHD officers in the application of Safety Case assessment criteria and suggested improvements to MHD's internal work processes.

For the second attachment, Dr Wardman and Mr Gorman provided guidance during MHD's early predictive screening (EPS) of its first two safety cases. A customised three-day process safety training course for MHD officers was also conducted, which covered topics such as the links between



▲ Mr Phil Gorman, Dr Mike Wardman and the MHD team discussing Safety Case assessment criteria in July 2017.



▲ Mr Phil Gorman conducting process safety training for MHD officers in October 2017.

predictive and process safety, chemical reaction hazards, occupied building risk assessment, bulk flammables liquid storage etc.

HSE's guidance in 2017 had helped to refine MHD's strategies for safety case implementation and enhanced MHD's competency in safety case assessment. The project continues into 2018, with HSE providing technical support for the later phases of safety case assessment.



▲ Dr Mike Wardman, DD(MHD), MHD officers during the EPS site visits to Stolthaven and Evonik in October 2017.

# KEY HIGHLIGHTS

## IChemE SINGAPORE PROCESS SAFETY AWARD 2017

The Institution of Chemical Engineers (IChemE) Singapore Awards recognises excellence in Chemical Engineering. This year, IChemE awarded the much coveted Singapore Process Safety Award to MOM, NEA and SCDF for the Implementation of the Workplace Safety and Health (Major Hazard Installations) Regulations by MHD. This award reaffirms MHD's role in improving process safety in Singapore.

MOM, NEA and SCDF went on to triumph in the IChemE Global Awards 2017, winning the accolade in the Process Safety category.



▲ DD(MH) Jaime Lim receiving the IChemE Process Safety Award from Er Stephen Fowler, General Manager, Shell Jurong Island.

## IMPLEMENTATION OF THE VEHICULAR SAFETY ACTION PLAN

A Vehicular Safety Action Plan (VSAP) was introduced in May 2017 to increase awareness, enhance capability building and amplify deterrence through Enforcement, Media, Information and Engagement Activities. A targeted enforcement operation code named "Operations Roadrunner" was launched and more than 500 inspections were conducted in 2 phases from June to August 2017. WSH information and guidance materials were also disseminated to companies, safety personnel, employees and key associations with the objective of raising awareness on the safe use of the different vehicles for work purposes.

A press release was issued after MOS joined the inspectors on one of the inspections for Operations Roadrunner, highlighting our enforcement actions and the urgent need for industry to take action. Prosecution cases related to vehicular safety were highlighted in the press releases. In addition, two media visits led by MOS Tan focused on both workplace traffic management issues and safe deployment of dispatch riders.

A three-month Vehicular Safety Campaign 'Drive Safe, Work Safe' was launched by MOS Tan in September 2017 to educate companies on worksite traffic management and safe driving on roads. Other than increasing awareness through the campaign, "Managing Onsite Vehicular Safety" (MOVEs) programme was also put in place in September 2017 to help companies improve the design of their workplaces to facilitate better traffic management. Under MOVEs, the WSH consultants would assess the work premises and provide guidance for companies in developing and implementing onsite traffic safety management plans at no charge.



# KEY HIGHLIGHTS

## iREPORT ONLINE REVAMPED TO WSH INCIDENT REPORTING eSERVICES

On 8 August 2017, the Work Injury Compensation Department launched a revamped WSH Incident Reporting eService to replace iReport Online. The revamped eService was designed to provide a user-centric experience and improved security benefits.

The key feature of the eService is the personalised dashboard for companies with a bird's eye view of all their incident reports. It provides a single access point for users to perform all report-related transactions. The dashboard also works in conjunction with the CorpPass login, enabling companies with greater control over employee access and improved security benefits.

In preparation for the launch, a slew of communication initiatives was carried out comprising briefings to MOM frontline officers updated FAQs, website updates and an infographic on the new eService disseminated over various platforms.

The dashboard would be progressively rolled out with enhancements to allow users to check work injury claims status and perform claim-related transactions. Stay tuned!



The infographic features a central laptop icon and text stating: 'On 8 Aug 2017, we are launching our revamped iReport to offer a better user experience. Users will be able to do more in this new eService.' It lists new features: 'CorpPass Login' (greater control), 'Dashboard' (manage reports), 'Resources' (links and info-maps), and 'New look and feel' (better design). It also includes a 'How to submit?' section with four steps: 1. Login, 2. Use the Dashboard, 3. Submit report & upload documents, and 4. Get acknowledgement.

## COLLABORATION WITH GENERAL INSURANCE ASSOCIATION OF SINGAPORE (GIA)

To ensure that workers have adequate work injury compensation (WIC) insurance coverage, we stepped up our collaboration with the General Insurance Association of Singapore (GIA) to reach out and educate employers on the need to purchase WIC insurance for their employees. It is hoped that the public education efforts will help reduce incidence of non-insurance cases. We worked with GIA to co-produce an educational infographic on WIC insurance for employers. The collateral addresses certain misconceptions that employers may have on WIC insurance policies, explains the differences between project and annual insurance policies and advises what employers should do if a project policy is used to respond to a work accident claim.

The infographic is titled 'Top 5 Work Injury Compensation Insurance Myths Busted'. It features a table with two columns: 'MYTH' and 'FACT'. Each row contains a myth statement, an icon, and a corresponding fact statement. At the bottom, it includes a QR code and the Ministry of Manpower logo.

MYTH	FACT
My workers are deployed to work on a project site and there is project work insurance by main contractor to cover them.	Your annual WIC insurance policy will first be used to satisfy a claim unless your project insurer informs MOM they will pay the compensation before the Notice of Assessment is issued.
I already have a group health and personal accident (PA) insurance policy which is enough to compensate my employees injured at work.	Health and PA insurance policies are not meant to cover work related accidents.
I bought a policy declaring my employees' occupations as general workers. This should be adequate even though my general workers are also required to drive at times.	Your WIC policy has to cover all the job functions of the employees, for example, it may comprise both general work and driving.
I have not renewed my WIC policy for my employees. One week late should be fine. I will do it next week.	You must renew your policy on time before it expires. If an accident happens during the period when your insurance has expired and not renewed, you remain liable to compensate your injured employees. You may be prosecuted for non-insurance.
My main contractor told me to buy a project insurance policy. But I have an annual insurance policy already.	Your annual insurance policy may have excluded works at project sites or there are contract limits. Your annual policy should cover all works, including project sites. Please inform your annual insurer to ensure there is such coverage in writing.



# KEY HIGHLIGHTS

## WSH INSTITUTE FORUM 2017 — “SAFETY AND HEALTH AT WORK: WHO OWNS IT?”

The WSH Institute Forum 2017 themed “Safety and health at work: Who owns it?” was organised on 18 May 2017 to explore deeper the concept of ownership in workplace safety and health (WSH) and possible ideas to engender active participations and contributions from various stakeholders. As part of the WSH Ownership study by WSH Institute done in collaboration with NTU, the Forum was attended by close to 300 participants, bringing together experts from various disciplines - academia, union and the industry sectors who shared their insights and perspectives of how ‘WSH ownership’ could lead to improvement in WSH performance and productivity in the long run.

In the opening address by Mr. Heng Chiang Gnee, Chairman, Workplace Safety and Health Council (WSH Council), he emphasised that having a sense of ownership would be a key ingredient to better WSH performance and encouraged everyone to embrace the mindset to move beyond compliance to prevent all work-related injuries and ill health.



▲ Chairman, Workplace Safety and Health Council (WSH Council), Mr. Heng Chiang Gnee.

### Speakers included

**Professor Theng Yin Leng from Nanyang Technological University**, who set the discussion going for the Forum by delving deeper on the concept of WSH ownership as part of the joint-project collaboration between the University and WSH Institute.

**Mr. Melvin Yong, Secretary of NTUC WSH Committee** provided examples of how workers and union leaders can create a win-win situation for both the company and their workers by taking personal ownership of WSH.

**Mr. Thomas Fernandez, CEO of PestBusters Pte Ltd** shared the impetus for his unyielding commitment and strong belief in taking ownership of WSH outcomes, which contributed to his company's continued and steady growth in the industry.

**Mr. Karl Hamann, CEO of QBE Insurance**, presented on the cost of poor WSH performance of companies which do not embrace the concept of WSH ownership.



The panel discussion moderated by **Mr. Patrick Han, General Manager, WSH Council** drew active participation, with issues centering on the challenges of adopting WSH ownership in the workplace.

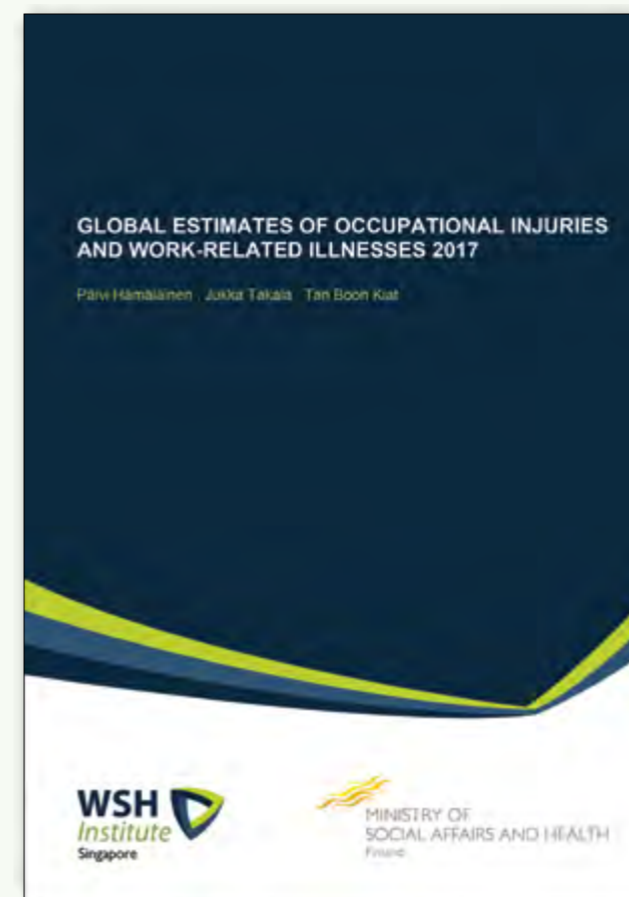
## COMPUTATION OF THE GLOBAL BURDEN AND GLOBAL COST ESTIMATES OF OCCUPATIONAL INJURIES AND ILL HEALTH BY WSH INSTITUTE

WSH Institute collaborated with the Occupational Safety and Health Department of Ministry of Social Affairs and Health of Finland (OSHD Finland) to estimate the burden and cost of poor workplace safety and health. The findings were announced by ILO during the XXI World Congress on Safety and Health at Work 2017.

The studies found that 2.78 million people lost their lives in the course of work. Of these, 2.4 million (86%) were from work-related ill health and 14% from work injuries and estimated cost was 3.9% of the global gross domestic product (GDP).

The studies are:

- ILO Global Burden of Occupational Accidents and Work-Related Diseases and;
- ILO Global Cost Estimate of Occupational Accidents and Work-Related Diseases.



▲ Reports - ILO Global Burden of Occupational Accidents and Work-Related Diseases and ILO Global Cost Estimate of Occupational Accidents and Work-Related Diseases.



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## 2017 WORK OVERVIEW

# STRATEGY 1



## Building WSH Competencies in the Workforce

### PROSECUTION OF 2 ERRANT ATP DIRECTORS FOR THE 1ST TIME IN MOM HISTORY WITH CUSTODIAL SENTENCING

In July and August 2017 respectively, two Accredited Training Providers' Directors were sentenced to 10 months' imprisonment each for their involvement in certificate milling activity. The two Directors were prosecuted for selling false Building Construction and Supervisor Safety Certificates to participants without the need to attend any course and assessment. More than 2,500 workers were implicated and appropriate punitive actions were taken against those involved.

The Ministry of Manpower holds WSH training in its highest regard and any person/s found to violate the safety training requirements will be punished accordingly, including prosecution.

### RECORD FINES

In 2017, 2 companies were each fined a record sum of S\$400,000 after they were prosecuted under the Workplace Safety and Health Act. The 1st prosecution was in relation to a fatal accident that had occurred on 22 March 2016. A train hit 2 employees who were working on the train tracks, which led to the death of the 2 employees. Investigation revealed that the company had failed to take the necessary measures to ensure the safety and health of its employees.

The 2nd prosecution was in relation to a serious accident that had occurred on 3 December 2012. A rig that was under construction tilted during the testing of its jack-up system. About 1000 workers who were working onboard the rig at the time of the accident evacuated immediately from the rig with some having to jump into the sea to escape. A large number of worker suffered injuries in the accident, with 89 of them requiring treatment at the hospitals. The company was found to have failed, as a principal, to take the necessary measures to ensure the safety and health of employees employed by its contractors.

### INDIVIDUALS' LIABILITIES

Besides companies, individuals such as corporate officers and persons at work also have a role in ensuring safety and health at workplaces. The occupier of a shipyard was sentenced to a fine of S\$200,000 in relation to an accident on 31 October 2016 in which an engineer fell into the sea while crossing between vessels that were docked at the shipyard and drowned. For failing to exercise all such diligence to prevent the commission of the offence by the shipyard, the Operations Manager of the shipyard was also sentenced to a fine of S\$80,000.

### PROFESSIONAL ENGINEER (PE) (CHEMICAL) REGISTRATION UNDER PE BOARD

In 2016, the petrochemical and chemical industry accounted for approximately 24.2% of Singapore's total manufacturing output. There is strategic importance in maintaining a safe chemical industry. Chemical Engineers contribute significantly in making Singapore a world-class chemical hub. They also have a key role to play in the safety case regime to ensure that high level of safety standards is maintained.

Recognising the important role played by competent chemical engineers, Chemical Engineering was made one of the prescribed branches for Professional Engineering, under the Professional Engineers Act on 16 November 2016. The registration of Professional Engineer (Chemical), or PE (Chem), commenced on 1 January 2017. To date, there are 86 registered PEs in the Chemical Engineering Branch.

PE (Chem) registration under the PE Board enhances the quality of chemical engineering practices through continual learning and professional development. PE Board, together with the Major Hazards Department (MHD), has been actively engaging qualified engineers with potential to register as PE (Chem) in the initial phase, to support the Safety Case regime regulated by MHD.



▲ MHD participated in the briefing session for Registration of PE (Chem) organised by PE Board.

### PROCESS SAFETY MANAGEMENT (PSM) SEMINAR

The PSM Seminar, organised by the Singapore Chemical Industry Council (SCIC), offered an in-depth look at selected Process Safety Management (PSM) elements such as:

- Understanding the role of safety design principles and inherent safety in reducing risk through process and job design.
- Importance of safety instrumented systems for protection of personnel, equipment and the environment.
- Hands-on session on Process Hazard Analysis (PHA) and Layers of Protection Analysis (LOPA) to verify that hazards of operations are identified and adequately controlled.



▲ Principal Specialist Randy Cha sharing the regulator's expectations of key design issues.

At the seminar, Principal Specialist Randy Cha shared the regulator's expectation of safety in design and the importance of understanding how the plants could contribute or influence major accident risks before examining design key issues to identify additional control measures to reduce risk to As Low As Reasonably Practicable (ALARP).

# 2017 WORK OVERVIEW



## Building WSH Capabilities in the Industry

### PROGRAMME-BASED ENGAGEMENT (ProBE) PLUS 2017

The Programme-based Engagement (ProBE) Plus is a Ministry of Manpower (MOM) and Workplace Safety and Health (WSH) Council flagship programme designed to target areas with poor safety and health records. It aims to achieve better WSH outcomes through greater industry ownership, capability-building efforts, increased engagement and enforcement on the WSH priority areas or hotspots. At the ProBE Plus 2017 Forum held on 19 April 2017, Mr Sam Tan, Minister of State for Manpower, shared the year's three priority areas for WSH efforts, namely Falls Prevention, Onsite Vehicular Safety and Prevention of Amputations. He also announced the launch of two onsite compliance assistance programme for the priority areas which is the Mobile Work-at-Heights Clinics (MWAH) and Managing Onsite Vehicular Safety programme (MOVEs).

### MOBILE WORK-AT-HEIGHTS CLINIC



▲ The Mobile WAH Clinic project team.

workers on various WAH issues and safety practices through the use of interactive pods stations. At the first pod station - 'Introduction, Engagement & Technology', employers and workers learnt more about the legislative requirements and their roles & responsibilities. The WSH Consultant also conducted an onsite assessment to identify WAH lapses and propose rectifications to mitigate these hazards. Employers and workers had the chance to experience working at heights through the interactive Virtual Reality (VR) headset.



▲ The site Project Manager trying out the Virtual Reality of falling from heights.

MOM in collaboration with Singapore Institute of Safety Officers (SISO) launched the MWAH Clinic programme to raise awareness and competency in managing working at heights risks at 300 workplaces, with deployable pods stations for comprehensive and customised engagement and training for employers and workers.

During the visit to the project site, the WSH Consultant educated the



▲ WSH Consultant conducts the MWAH Clinic in a designated Pod Station.

At the second pod station - 'WAH Equipment Demonstration', employers and workers were educated on topics such as working safely on fragile roofs, ladders, scaffolds and mobile elevated work platforms (MEWP). They were also taught hands-on learning of safe work practices relating to Slips, Trips and Falls and proper usage of personal-protective equipment. At the last station - 'Health Check & Quiz', workers were given basic health check (i.e. blood pressure and temperature monitoring) and a short quiz conducted to assess their understanding in working at heights.



▲ WSH Consultant guides the worker in accessing the scaffold ladder in a safe way.

▲ WSH Consultant taking temperature and measuring blood pressure for the worker.



◀ WSH Consultant explaining and sharing the tips for staying healthy at work.



▲ WSH Consultant providing a short introduction to the MOVEs visit.

### MANAGING ONSITE VEHICULAR SAFETY

Another programme launched under the ProBE Plus 2017 was the "Managing Onsite Vehicular Safety (MOVEs)" which focused on the development and implementation of workplace traffic management plans within the worksites.

During a MOVEs visit, the appointed WSH consultant would explain the purpose and scope of the visit to the occupier, along with a short sharing of relevant WSH regulations and statistics. The senior management of the project team together with the consultant would go for a 30-minute site visit to identify any WSH lapses relating to traffic management. The consultant would then provide a briefing on the lapses identified and recommend possible rectifications. The consultant would also review and develop a proper traffic management plan for the worksite if it's necessary. Before the visit ends, a MOVEs kit containing equipment relating to worksite traffic management and collaterals developed by WSH Council would be distributed to the companies accompanied by a demonstration on the usage of the kit.

# 2017 WORK OVERVIEW

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## AWARENESS TRAINING ON MOM REQUIREMENTS FOR AUDITING ORGANISATIONS AND CT17

On 12 September 2017, Inspectorate Specialist Group (ISG) from Occupational Safety Health Inspectorate (OSHI) conducted the Awareness Training on MOM Requirements for Auditing Organisations and CT 17. A total of 12 SAC assessors and 4 technical experts attended the training in preparation for the migration of the MOM's WSH Auditing Organisation scheme to the SAC-Auditing Organisation. Mr Desmond Hill, Chairman of CCMP, urged all participants to help to raise the audit standards in Singapore.



## WORKPLACE SAFETY AND HEALTH AUDITING ORGANISATION (WSHAO) BRIEFING

On 15 September 2017, a Workplace Safety and Health Auditing Organisation (WSHAO) briefing was held for 68 WSHAOs. Mr Chan Yew Kwong, Director (Occupational Safety and Health Inspectorate), announced the migration of WSHAO scheme to the SAC-AO scheme together with SAC's CCMP Chairman. During this briefing, the below following areas were covered:

- New criteria SAC CT 17;
- Ways to improve effectiveness and quality of WSH audit with SAC scheme; and
- Timeline for transition.



## NATIONAL CHEMICAL MANAGEMENT AND GHS AWARENESS SEMINAR

On 13 October 2017, the National Chemical Management and Globally Harmonised System (GHS) Awareness Seminar – 18th run was organised by Singapore Chemical Industry Council (SCIC) and supported by Task Force. Er. Veronica Chow, Senior Principal Specialist from OSHI was invited to speak at this seminar which was attended by 200 participants. This seminar provided an overview of the Task Force initiatives to drive chemical management and GHS, highlight on various regulatory requirement and a Small Medium Enterprise (SME) industry's perspective of chemical management life cycle and fulfilling the Regulation Requirement.



▲ Site visit by the Consultant and Senior Management.

Participating companies commented that the MOVEs Programme visits had assisted them in managing pedestrian and vehicular movement within their workplaces more effectively. Through the visit, they were able to learn more about vehicular safety management, and the MOVEs safety kit distributed was useful for the companies to implement within their workplaces. OSHD will review the programme to assess effectiveness and feasibility for expansion to benefit more companies.



▲ Review of the Traffic Management Plan.

▲ Distribution and Demonstration of the MOVEs Kit.



▲ Publicity poster for Help Mr SwOSH online quiz.

## HELP MR SWOSH! – OUR GUIDE TO SERVE WITH HEART

Providing good service to customers is the responsibility of every employee.

No matter how impressive our technology is, customers are most likely to remember the interaction they had with the officer.

With this in mind, the Customer Management Unit in OSHD created an engaging character called Mr. SwOSH (Service within OSH) to enlighten our officers on MOM's Excellence in Service (ExiS) framework.

"Help Mr SwOSH!" is a bimonthly online quiz that tells the story of how Mr SwOSH, who is a Workplace Safety and Health (WSH) Inspector, helps to solve WSH issues in fairy tale land. In each episode, he encounters a fairy tale character (eg. Humpty Dumpty, Gingerbread Man) with a different WSH problem and guides them while presenting questions on the ExiS strategies encompassing the H.E.A.R.T. principles. The online quiz is available on Workplace by Facebook and can be done on mobile phones at the officers' own time too. The results tabulated allows officers to gauge themselves on how well they know MOM's ExiS framework.

Officers responded positively to this fun and innovative approach on teaching themselves about the importance of customer service.

# 2017 WORK OVERVIEW

## TECHNICAL TRAINING ON EXAMINATION OF STATUTORY EQUIPMENT FOR MECHANICAL ENGINEERS

To build the industry's capability to conduct sound and proper testing and examination of statutory equipment such as pressure vessels and cranes, the Engineering Safety Branch of the OSH Specialist Department, worked with various industry partners to develop and organise training courses on examination and inspection of statutory equipment. These courses provided a platform for participants to keep abreast on latest developments and technology advancements in the field of lifting equipment and pressure vessel. The training also provided opportunity for the engineers to deepen their skills and knowledge relating to the testing and examination of these statutory equipment.

### ■ Crawler Crane Inspection Training Course

The Crawler Crane Inspection Training Course was launched in December 2017. Jointly developed with the Institute of Engineers Singapore (IES), the course included both theory and practical modules, and covered inspection methodology and key components of a crawler crane. This course is part of the Crane Inspection Course series which included the Lorry Crane Inspection Course and the Tower Crane Inspection Course that were introduced earlier in 2016.



### ■ Customised API 510 Pressure Vessel Inspection Code Workshop

The customised American Petroleum Institute (API) 510 Pressure Vessel Inspection Code Workshop was held in June 2017. Jointly organised with the American Society of Mechanical Engineers (ASME) Singapore Section, this workshop featured international trainers

providing in depth understanding and insights on the requirements of the code. The workshop was tailored to participants who wished to gain in depth knowledge on inspection of pressure vessels in compliance with the API code. This training also served as a foundational module for participants who aspire to attain certification for the coveted API 510 Pressure Vessel Inspector certification programme.



## TECHNICAL TRAINING FOR OCCUPATIONAL HYGIENISTS

As part of competency building for our occupational hygiene specialists in the area of noise and chemical measurements and standards, officers attended courses conducted by the National Metrology Centre under their Measurement Assurance Programme.

### ■ Metrology in Gas Analysis Course

The Metrology in Gas Analysis course held in July 2017 covered metrological concepts, gas measurement including gas mixture standards quality system, gravimetric preparation of standard gas mixtures, gas analysis and measurement uncertainty evaluation. The lab session provided our specialists with deeper understanding on how gas analysis using gas chromatography is carried out in laboratories.

### ■ Airborne Acoustic Measurement and Calibration Course

The Airborne Acoustic Measurement and Calibration course introduced basic metrological concepts on airborne acoustics. The course covered airborne acoustic measurement principles and international standards on measurement instrument & selection, traceability & calibration of these instruments, measurement uncertainty analysis and interpretation of calibration reports which are being used for assessment on laboratory accreditation.

## PREVENTIVE MEDICINE RESIDENCY PROGRAMME

Drs Melvin Seng, Lim Dwee Wee and Gabriel Chia were posted to the OSH Specialist Department in 2017 as part of their Preventive Medicine Residency Programme (PMRP). The PMRP is a five-year national program for preventive medicine training in Singapore for doctors specialising in Public Health and Occupational Medicine. It aims to equip the Resident doctors with a sound and broad foundation in preventive medicine focusing on the health of individuals and defined populations to protect, promote, and maintain health and well-being; and prevent disease, disability, and premature death. The Ministry is one of the affiliated institutions for the PMRP and offers a practicum experience for the Residents to acquire core competencies in occupational medicine practice, participating in the investigation and management of workers with work-related ill health and diseases. Senior Consultant, Dr Ho Sweet Far, is the Associate Programme Director of the programme overseeing the training and development of the Residents in the Ministry.



▲ Dr Lim Dwee Wee (2nd from left) participating in workplace assessment with Occupational Hygiene Specialists and Dr Ho Sweet Far (far right).

## WSH YOUTH CHAMPION

On 21st October 2017, WSH Council inaugurated 29 Workplace Safety and Health (WSH) Youth Champions. The youths, representing a cross-section of the community, i.e. students from the institutions of higher learning to young working adults from the different industries spanning waste management, education, trade associations and unions, congregated at MOM Services Centre, to jointly embrace their new role as a WSH Youth Champion. These champions had recently participated in the SafeYouth@Work Congress held in September 2017 and have since volunteered to serve as our pioneer WSH Youth Champions.

The mission of the WSH Youth Champions is to help reach out and raise the safety and health awareness



movement in Singapore. The like-minded Champions, bonded over this common interest and goal, demonstrate excellent communication skills and a wide array of initiatives to drive the mission. Every WSH Youth Champion has to undergo a half-day WSH Essential Induction Program. This program covers the salient points of WSH Regulations, basic Risk Assessment methodology, and the various WSH Council's programs such as Vision Zero and bizSAFE. They were also introduced to the WSH Council's website and its various features. The Youth Champions are appointed for a period of three years and will be engaged as one of WSH Council's network of partners to help propagate WSH to the community.

On 8 December 2017, WSH Council appointed a second batch of WSH Youth Champions. 27 students from Temasek Polytechnic volunteered their time to participate in the WSH Youth Champion Programme.

Mr Seet Choh San, Honorary President of the Singapore Institution of Safety Officers, and Chief Safety Officer of Temasek Polytechnic took time off his busy schedule to conduct the workshop on a voluntary basis, to equip the youths with knowledge of Total WSH, Vision Zero, Risk Management and an understanding of the bizSAFE Programme.

WSH Council will be working closely with the appointed Temasek Polytechnic's WSH Youth Champions to provide opportunities for them to reach out and share the WSH message with the Temasek Polytechnic community for a start.

With the successful completion of this programme, we now have 56 WSH Youth Champions as at 31 December 2017. We wish our Youth Champions all the best in their endeavour to build a WSH-Vision Zero mind-set in the community.



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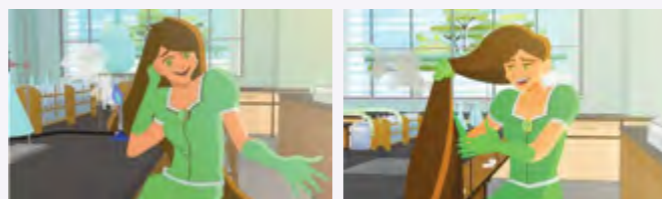
## SAFE SCHOOL

The "Safe School" programme, originally known as "Pre-Employment Training" (PET), was first mooted in 2011 with the focus to inculcate the next generation workforce with the knowledge and skills to deal with safety and health issues at the workplaces. Risk management training was one key component of the programme. Avenues to introduce risk management training were provided through the course curriculum and pre-industrial internship programmes of the six local universities, the five polytechnics and the Institute of Technical Education (ITE). Students were trained to identify hazards and skills to mitigate foreseeable risks, thereby potentially preventing workplace incidents and accidents.

Originally called the "Pre-Employment Training" programme, the name was later re-branded to "Safe Schools" programme for better identification and affiliation with the Education sector.

## JOINT PROJECT BETWEEN WSH COUNCIL AND MINISTRY OF EDUCATION (MOE) ON THE DEVELOPMENT OF WSH MEDIA PLATFORM FOR NATIONAL SECONDARY SCHOOLS IN SINGAPORE

Exposing our young to the concept and principles of safety and health early will allow them to develop the mindset and capability to take care of themselves responsibly. WSH Council is collaborating with MOE's Curriculum Planning and Development Division (CPDD) to develop five purposeful WSH videos for students at the Secondary Schools in two phases.



### Phase 1

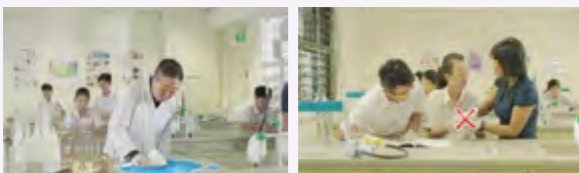
- (a) General Laboratory Safety Regulations
- (b) Safety in Chemical Laboratory
- (c) Safety in Bio-Laboratory

### Phase 2

- (d) Nutrition and Food Sciences
- (e) Design and Technology

The videos produced in Phase 1 had been completed and are available for download from the WSH Council website. These videos will also be hosted on MOE's Students' E-Learning Space (SLS) for convenient access by every student and teachers.

The video clips will be made accessible to all the 169 secondary schools and Integrated Programme (IP) schools outreaching to an approximate 200,000 students and 3,000 staffs annually. The video clips will be shown during school orientations.



## bizSAFE PROGRAMME

The bizSAFE programme was launched in 2007 to help Small and Medium Enterprises (SMEs) raise their risk management and WSH management capabilities through a five-step approach. Large organisations with strong WSH leadership and capabilities were enlisted to mentor participating SMEs.

Since its launch, enhancements to the bizSAFE programme have been done to make it more relevant and up-to-date. Enhancements include:

- Total WSH – Inclusion of elements of Total WSH which include introducing companies to the benefits of implementing Total WSH, so as to encourage them to take an integrated approach to manage safety, health and well-being in the workplace.
- SGSecure – Inclusion of identification and management of security risks, such as terrorist attacks, into the bizSAFE framework to strengthen the vigilance and resilience of workplaces to withstand terror attacks.

The bizSAFE programme has grown since its launch in 2007. As of 31 December 2017, there were 29,234 bizSAFE Enterprises, 391 bizSAFE Partners and 18 bizSAFE Mentors in the bizSAFE programme.

## RETURN-TO-WORK (RTW) PROGRAMME

The RTW Programme was successfully launched by Minister of State for Manpower (MOS) Sam Tan on 1 November 2017 at Suntec Singapore Convention and Exhibition Centre.

The RTW programme provides personalised case management through a RTW Coordinator to help workers who suffer from traumatic work injuries and work-related musculoskeletal injuries phase themselves into work as soon as medically reasonable. It is an initiative to provide early intervention to help injured workers regain their work ability and long term employability and ensure that they contribute to economic productivity at the workplace.

MOM has partnered seven public hospitals to roll out the RTW programme progressively over the next 12 months and Tan Tock Seng Hospital was the first to offer the RTW services starting from 25 September 2017. By the end of 2018, all seven public hospitals will have RTW clinical services ready.

A new RTW Grant of \$500,000 has been established to support SMEs who participate in the RTW programme.



## RTW COORDINATOR AND DEVELOPING AN RTW PLAN

The hospital-based RTW Coordinator is the key liaison person between all stakeholders. He/She will communicate with the doctors, allied healthcare professionals, employer and injured worker to understand the medical condition and job demands of the worker to assist in the development and implementation of the RTW plan to help transit the worker back to work in a step-by-step or graduated process.



### Benefits

#### Employer

- Reduce the need to hire new or temporary workers and cost of training;
- Minimise disruption in operations by keeping experienced and skilled workers; and
- Perceived by employees as a caring organisation and an employer of choice.

#### Worker

- Able to work to support family and self;
- Do work which matches his ability;
- Opportunity to retain job skills; and
- Reduce stress caused by injury or ill health or joblessness.

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## RETURN-TO-WORK COORDINATOR (RTWC) WORKSHOP

On 23 and 24 November 2017, representatives from the hospitals and insurance companies attended the first Return-to-Work Coordinator (RTWC) Workshop organised at Tan Tock Seng Hospital (TTSH). The two-day interactive workshop, led by TTSH's Occupational Therapy department, supported by Dr Sylvia Teo of WSH Council and Ms Soon Kim Yen, Head of Claims of MOM's Work Injury Compensation Department (WICD), trained a total of 16 allied health professionals, including occupational therapists, physiotherapists and medical social workers from SGH, NUH and CGH to attain basic competency in functioning as RTW Coordinators.

An industry engagement session involving Union representatives, employers and a hand surgeon had helped the participants to understand the perspectives of different stakeholders to facilitate their future interaction with these important stakeholders. Ms Soon gave an insightful sharing on the Work Injury Compensation (WIC) Act, which facilitated the participants' understanding of the WIC claim process, which is fundamental to their roles in helping injured workers.

The workshop incorporated role play sessions which allowed the participants to experience and trial the process of interacting with different stakeholders such as a doctor, therapist, employer and injured worker. Through the sharing sessions, the participants had learnt much from one another including the good practices which they could apply in their RTW roles. The workshop received positive feedback and the participants were highly engaged and inspired to take on the RTW role in their respective hospitals.



## CULTURES SAFE PROGRAMME

The CultureSAFE programme has been guiding companies to develop and sustain a progressive and pervasive WSH culture since its launch in September 2012.

An index system with specific diagnostic instruments appraises the development of a WSH culture in participating organisations, yielding results that help chart new initiatives and programmes to advance WSH.

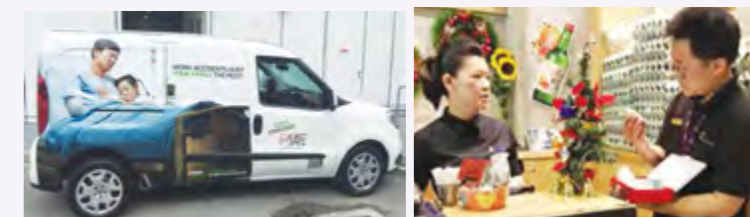
As of 31 December 2017, 296 non-SMEs and 644 SMEs have joined the CultureSAFE programme.

## SAFETY COMPLIANCE ASSISTANCE VISITS PLUS (SCAV+)

Safety Compliance Assistance Visits (SCAV) was first launched in October 2010 to provide complimentary onsite assistance to SMEs for compliance with WSH requirements. In November 2016, the enhanced Safety Compliance Assistance Visits Plus (SCAV+), which was developed using Behavioural Insights (BI), was launched.

The SCAV+ provides onsite customised compliance assistance by certified WSH professionals who will assess the workplace jointly with the employers and supervisors to identify WSH lapses and recommend relevant control measures.

As of 31 December 2017, SCAV+ has reached out to 504 workplaces.



## StartSAFE

Launched in October 2016, StartSAFE is a programme initiated by the WSH Council to assist non-bizSAFE SMEs adopt good WSH practices and embark on the bizSAFE journey.

Trained WSH practitioners will pro-actively visit SMEs to help them identify WSH hazards on site and provide advice to rectify the lapses on the spot. The programme will help SMEs which are unaware of WSH risks and unsure of how to implement good WSH practices, to build its capabilities in these areas. Through StartSAFE, we hope that SMEs will be motivated to join bizSAFE to sustain their journey in creating safe and healthy workplaces.

As of 31 December 2017, StartSAFE has reached out to 1,200 workplaces.

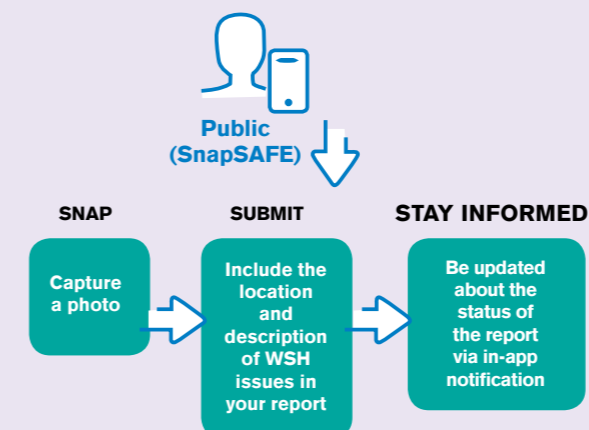
## SnapSAFE

SnapSAFE, previously known as Snap@MOM, is a mobile application developed by the Ministry of Manpower (MOM). This application aims to drive community and industry ownership in managing WSH issues. SnapSAFE was launched on 1 December 2017 and is now available on Google play and the App Store.

Anyone can use SnapSAFE to report WSH issues. The application comprises of two key functions:

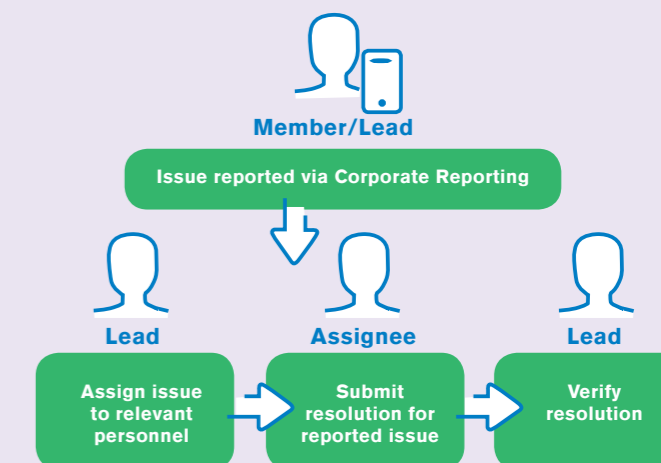
### Public Reporting:

Using SnapSAFE, members of the public can report WSH issues to MOM. They will now be able to receive updates on the reports that they made and be notified when the WSH issue has been rectified.



### Corporate Reporting:

Companies can make use of this new feature to manage and resolve WSH issues at their workplaces. Reports made can be assigned quickly to employees for their actions. There is also a dashboard to review status of WSH issues. Enforcement actions will not be taken for reports submitted through the corporate reporting function.





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## PRACTICAL ASSISTANCE

### E-learning module “Safety First with Ken and Friends” for students

“Safety First with Ken and Friends” is an online e-learning module for upper primary and lower secondary school students. In this e-learning module, students can interact with Ken and his friends on topics such as safety at home, safety at play, traffic safety and slips, trips and falls.



### E-learning module “Safety and Health with George and Hazel” for adults

“Safety and Health with George and Hazel” is an online e-learning module for adults. In this e-learning module, participants can learn basic knowledge on WSH hazards, and the control measures to keep themselves safe and healthy at work. Some of the topics include chemical safety, working at heights, slips, trips and falls and ergonomics.



## CASE STUDIES ON ACCIDENTS INVOLVING WORK AT HEIGHTS

The lessons learnt from past workplace incidents will help to prevent the next incident from recurring. This Case Studies on Accidents Involving Work at Heights booklet is a compilation of past workplace accidents involving work at heights. Companies could share these cases during training or toolbox meetings to help workers carry out their work safely.



## WSH GUIDELINES – PROCESS HAZARD ANALYSIS

Industrial processes may pose process hazards that could result in catastrophic outcomes (e.g., a major fire, explosion or toxic release) if the process or material is not managed with care. It is therefore critical to perform a Process Hazard Analysis (PHA) so as to identify process hazards as early as possible and put in place measures to control the hazards.



This publication introduces small-and-medium sized enterprises (SMEs) to PHA methodologies commonly used in the chemical process industry. Factory owners, SME plant managers, technical supervisors and operation or production personnel can use this publication to incorporate relevant aspects of PHA into their Workplace Safety and Health (WSH) management system as part of good process safety management (PSM).

## INDUSTRY STAKEHOLDERS COLLABORATES TO DEVELOP GUIDELINES FOR RIDERS

The usage of bicycles, personal mobility devices and power assisted bicycles are now a common sight for food and package deliveries in Singapore. There has been a worrying trend of work related traffic accidents since these transport devices share our roads.

To address this concern, a tripartite workgroup under the WSH Council (Hospitality and Entertainment Industries) Committee has developed a safe riding guidelines.

Through this tripartite effort, the guidelines will be promoted and distributed through workgroup members, relevant platforms and WSH bulletin.



## SAFE RACKING PRACTICES POSTER

Led by Logistics and Transport Committee, WSH Practices developed a poster on Safe Racking Practices. This poster includes simple safety messages on the do's and don'ts of racking practices. Companies could use the poster at their toolbox meetings for workers.

## REVISED WSH GUIDELINES ON SAFE LOADING ON VEHICLES

The WSH Guidelines on Safe Loading of Vehicles which was first published in 2010, serves as a WSH resource detailing the various hazards encountered in the routine activities during safe loading of vehicles.

In this 2017 revision enhancements were made to the safety principles of transportation, cargo arrangement, restraining methods for different cargo types and loading and unloading activities.



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### Sharing of Knowledge on Local Platform

#### ASIA PACIFIC WELLNESS FORUM 2017

Executive Director of WSH Institute, Dr Gan Siok Lin, was invited to speak at the Asia Pacific Wellness Forum 2017 hosted by Johnson & Johnson Singapore on 15 September 2017. Participants learnt about enhancing mental well-being in the workplace using the iWorkHealth tool and the Total WSH approach to manage safety, health and well-being in the workplace.



▲ Dr Gan Siok Lin, ED, WSH Institute with speakers and participants of the forum.

#### SPECIALIST TRADE ALLIANCE OF SINGAPORE NETWORKING NIGHT

The Specialist Trade Alliance of Singapore (STAS) held their regular members networking night on 11 May 2017 at Singapore Island Country Club (SICC) where more than 100 members turned up. As STAS arranged for a few presentations at the event to share information amongst members, WSH Council and MOM took the opportunity to present some of the WSH best practices in handling Asbestos.

#### SAFETY SHARING SESSION FOR LANDSCAPE INDUSTRY ASSOCIATION OF SINGAPORE (LIAS)

To engage the Landscape Industry on the safe usage of Lorry Cranes, WSH Council and LIAS organised a Safety Sharing Session for LIAS members and major companies in the Landscape Sector on 2 March 2017.

LIAS Chairman, Mr Goh Eng Lam, opened the session, stressing the importance of safe use of lorry cranes in landscape works, such as tree-cutting by the road side. Mr Chia Chee Yong from OSH Specialist Department (Engineering Safety Branch) followed with a sharing on past lorry crane dangerous occurrences and encouraged the adoption of safety practices.

Industry partner, Wong Fong (supplier of Palfinger lorry cranes) was also invited to share on technological solutions to enhance the safety of lorry cranes, followed by a live demonstration of one such lorry crane with stability management system. NParks also shared on their Landscape Productivity Grant which is available for landscape contractors who wish to purchase such equipment to improve their productivity.

The attendees found the sharing informative and said that they would consider using lorry cranes with stability management system for their landscape works.



▲ Live demonstration of a lorry crane with stability management system.

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### DESIGN FOR SAFETY (DFS) SEMINAR AND MASTERCLASS

On 10 January 2017, a DfS seminar was co-organised by the Institution of Engineers Singapore (IES) and WSH Council for the construction industry. More than 80 participants attended the seminar where a UK expert on Construction (Design and Management) or CDM, (UK's equivalent of DfS) spoke on implementation of DfS, together with local speakers who shared on how DfS had been considered in their projects.

There were also three runs of a DfS Masterclass on 11-13 January 2017 where participants of the workshop delved deeper into how DfS could be implemented in their projects and what the project team should consider.

### SEMINAR ON SGSECURE AND WORKPLACE SAFETY ORGANISED BY BEDOK SAFETY GROUP

WSH Council participated in Bedok Safety Group's seminar on SGSecure and Workplace Safety on 16 May 2017 with a talk on "WSH and Workplace Housekeeping" in the afternoon. Officiated by MOS Sam Tan as Guest of Honour, the audience of more than 120 from Bedok Safety Group member companies also witnessed the response to a simulated terrorist attack at the premises of Panasonic Appliances Refrigeration Devices Singapore in the morning.

### WORKPLACE SAFETY AND HEALTH AND TRAFFIC MANAGEMENT IN CONSTRUCTION SECTOR

On 3 November 2017, Deputy Director (Occupational Safety and Health Inspectorate) Sebastian Tan gave a presentation to Housing Development Board (HDB) officers on "Workplace Safety and Health and Traffic Management in the Construction Sector". This event provided an overview of the Workplace Safety and Health (WSH) performance of the construction sector and cover case studies related to traffic management and share good traffic management practices at worksites.



◀ Deputy Director (Occupational Safety and Health Inspectorate) Mr Sebastian Tan giving the presentation.

### TRIPARTITE OVERSIGHT COMMITTEE (TOC) RELEASED WORKPLACE HEALTH REPORT

On 20 July 2017, the Tripartite Oversight Committee (TOC) on Workplace Health had released a report titled, Tripartite Oversight Committee on Workplace Health 2014-2017, to showcase its achievements and recommendations for workplace safety and health promotion. Co-chaired by Senior Minister of State for Health, Dr Amy Khor and Minister of State for Manpower, Mr Sam Tan, the Committee consisted of representatives from Ministry of Health, Ministry of Manpower, Health Promotion Board, WSH Council and relevant stakeholders.



Since it was established in 2014, the Committee has been actively advancing workplace safety and health. In particular, the Workplace Safety and Health (WSH) Policy sub-committee helmed the effort to incorporate holistic safety and health in all policies at the workplace, where 120 companies with approximately 110,000 workers embarked on Total WSH. These companies were from sectors including construction, manufacturing, healthcare, marine, logistics and transport and retail. In terms of raising awareness till date, we have achieved 1.18 million hits through various WSH Council outreach channels, which is about 33% of the total working population of the current 3.61 million working population. Some examples of the national platforms where Total WSH topic was injected included the WSH Conference 2016 (attended by 1,000 participants) which has 'Total WSH: The future of our Workplace' as its theme and the 'WSH Campaign 2016' (attended by 120,000 participants) with the theme 'How you work is how you live'.

To showcase OUE Downtown's Healthy Workplace Ecosystems, the Tripartite Oversight Committee (TOC) on Workplace Health organised a media event at OUE Downtown. During the media event, SMS Khor and MOS Tan visited various facilities, where the tenants could actively participate to achieve a healthier lifestyle.

### MHI SYMPOSIUM 2017

Er. Go Heng Huat, Director of the Major Hazards Department (MHD), gave a keynote speech at the Major Hazards Symposium on 28 July 2017 where he shared Singapore's Safety Case journey and the supporting framework that was put in place for implementing the regime. Other speakers included academics as well as leaders from the industry and government agencies, who shared various topics on process safety and their importance under the Safety Case Regime.



▲ SS Lim Liang Hong (left) delivering his presentation. DD(MHD) Jaime Lim (right) delivering the closing remarks.

▲ D(MHD) giving his keynote address at the symposium.

The symposium was organised by Singapore Institute of Technology (SIT), in partnership with the Society of Loss Prevention (SLP), NTUC's Employment and Employability Institute (e2i) and the Labour Movement's Oil, Petrochemical, Energy and Chemicals (OPEC) Cluster. The symposium also witnessed the signing of a Memorandum of Understanding (MOU) between e2i, SLP and SIT, to promote joint training and up-skilling opportunities to build a core pool of skilled professionals in process safety.

Ms Jaime Lim, Deputy Director (MHD), gave closing remarks, summarising the key implementation details of the WSH (MHI) Regulations. She encouraged MHIs to tap on MHD's consultation platforms of Safety Case Clinics and Pre-Receipt Meetings, to facilitate Safety Case preparation.

### BCA LEARNING OF MOM'S CONTRACTORS REGISTRATION SYSTEM

On 16 October 2017, Occupational Safety Health Inspectorate (OSHI), Licensing Branch & Equipment Safety Branch met up with Building Control Authority (BCA) to share on MOM's registration system. During this session, BCA covered on the issues from lift and escalators. There is also sharing of the merits and underlying issues of various systems and exploration of future collaboration on cross training for mechanical engineers.

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### WSH SYMPOSIUM ON WORK AT HEIGHTS 2017

Close to 700 participants attended the WSH Symposium on Work At Heights (WAH) 2017 at Devan Nair Institute for Employment and Employability (e2i) on 20 November 2017. The Symposium was organised by Workplace Safety and Health (WSH) Council and Ministry of Manpower (MOM) in collaboration with National Work At Heights Safety Taskforce and supported by the Institution of Engineers Singapore (IES) and Singapore Institute of Safety Officers (SISO).

In his opening speech, Guest-of-Honour Mr Heng Chiang Gnee, WSH Council Chairman, shared the importance of tripartite partnership and collaboration to build a culture of prevention. While there were improvements in WAH performance since the introduction of the WAH Taskforce in 2009, the challenge was in sustaining these efforts to achieve the new target of a fatal injury rate of less than 1.0 per 100,000 workers before 2028 as announced by PM Lee Hsien Loong in last September. He rallied the industry to work with WSH Council and MOM to raise standards so that accidents can be prevented to keep our workforce safe and healthy.

The Symposium also provided insights on recent enforcement findings, application of the law and sharing of past prosecuted cases, as well as best practices and innovation related to WAH. Two workshops were also conducted alongside the



Symposium for participants to gain in-depth knowledge of fall prevention systems computation and implementation.

An exhibition showcasing some of the latest technology that could mitigate or eliminate WAH risks were also on display. These technology include Virtual/Augmented Reality (VR/AR) equipment to aid training realism and increase knowledge retention, mechanised access to replace traditional access methods to boost productivity as well as wearable and sensor technology to provide predictive analytics to prevent accidents from happening.

An interactive Q&A session towards the end of the Symposium provided much candour and lively exchange on WAH challenges and how WSH measures could be adequately implemented on the ground. Participants welcomed such platforms to promote healthy exchange and seek clarifications on WSH.

### CRANE SAFETY SYMPOSIUM 2017

The Engineering Safety Branch of the OSH Specialist Department, in collaboration with the National Crane Safety Taskforce, jointly organised the annual Crane Safety Symposium 2017 which was held on 23 October 2017. The event was attended by more than 300 participants.

The Symposium was graced by Guest of Honour, Mr Sam Tan, Minister of State (MOS) for Ministry of Manpower. In his opening speech, he emphasized the importance of actively involving all our tripartite partners – the employers, workers, unions and Government, as part of our efforts in preventing crane-related accidents. MOS Tan also spoke on the need to adopt a Total WSH approach towards managing the safety, health and well-being of our crane operators at work. He shared that in the first nine months of this year, there were 12 cases of dangerous occurrences cases, of which, eight involved lorry cranes. To tackle this increasing dangerous occurrences involving lorry cranes, a Lorry Crane Workgroup comprising of members from industry partners, Workplace Safety and Health Council and the Ministry of Manpower (MOM) was formed to look into measures to prevent such incidents. MOS Tan shared the following recommendations from the Workgroup:

- Encourage the adoption of technology through installation of the Stability Control System;
- Develop an enhanced training regime for lorry crane operators; and
- Publish practical guidelines on safe operation of lorry cranes.

MOS Tan also highlighted the additional risks brought about by more frequent conduct of heavy lifting as the result of the adoption of new construction methods such as the Prefabricated Prefinished Volumetric Concrete (PPVC) method. He informed that MOM would be reviewing the requirements for such heavy lifting. As part of the process, Focus Group Discussions (FGDs) with industry partners was conducted in January 2018 to gather valuable feedback on the risks involved.

The Symposium saw speakers who shared on various topics including statistics on crane-related dangerous occurrences, managing safe lifting operations and leveraging on technology such as the use of data loggers to aid in raising safety practices in lifting operation. Deputy Director (Engineering Safety) Er. Tan Kee Chong also shared the enforcement actions and findings of the recent specialised enforcement operation codenamed "Operation BlackHawk" conducted by the Engineering Safety Branch.

The Symposium also screened newly developed crane safety video titled "Introduction to Safe Lifting Operation". The video featured considerations and practices to adopt during lifting operations.

To demonstrate how the Stability Control System (SCS) could enhance the safe use of lorry cranes, three lorry cranes fitted with the SCS were on site to carry out live demonstration on the use of SCS. MOS Tan also led the audience to witness a live site demo on the use of the SCS.



# 2017 WORK OVERVIEW



▲ Q&A facilitated by D(MHD) and DD(MHD).

## ANNUAL JURONG ISLAND COMMUNITY SEMINAR (JICS) 2017

Organised by the JTC Corporation, the annual Jurong Island Community Seminar (JICS) provides a platform for the Jurong Island community to get together with the government agencies to discuss pertinent topics related to the industry and the island. It also presents an opportunity for the agencies to give an update on their latest initiatives.

This year's JICS was held at the JTC Summit on 24 November 2017. More than 200 participants attended the seminar, together with the government agencies' representatives from the Economic Development Board (EDB), Ministry of Manpower (MOM), National Environment Agency (NEA), Singapore Civil Defence Force (SCDF) and Singapore Police Force (SPF), as well as representatives and partners from the Union, Workplace Safety and Health Council (WSH Council), Singapore Chemical Industry Council, and the Association of Process Industry.

This year's seminar adopted a different approach from previous seminars through holding concurrent break-out sessions to encourage greater in-depth discussions within the community on key areas, such as:

- Jurong Island Business Continuity Plan;
- Jurong Island Evacuation Plan;
- Jurong Island Safety and Health Issues; and
- I4.0 & Advanced Manufacturing.

The Major Hazards Department (MHD) hosted the break-out session on Safety and Health issues with Workplace Safety & Health Council (WSH Council) and SCDF. MHD presented on topics of interest to the JI community on reporting of process-related incidents, Safety Case assessment process, and management of domino Impact and Information sharing among MHI cluster. This was followed by an interactive Q&A session helmed by Director and Deputy Director of MHD which saw participants seeking further insights into technical and operational issues relating to safety case regime.

WSH Council presented the concept of Total Workplace Safety and Health (TWSH) and illustrated how work, safety and health are inter-related. Participants recognised the benefits of TWSH and were generally supportive but shared challenges in implementing safety & health components using a holistic & integrated approach with A/Prof Chia Sin Eng, Senior Consultant (TWSH), WSH Council. Moving forward, A/Prof Chia will be leading a team to increase workers' access to TWSH services and help businesses operationalise TWSH.



▲ A/Prof Chia Sin Eng facilitating a TWSH discussion with participants.

## CONCEPT OF VISION ZERO – DEVELOPING AN “ALL INJURIES AND ILL HEALTH AT WORK ARE PREVENTABLE” MINDSET

Senior Consultant of WSH Institute, Dr Jukka Takala's article titled “Zero falls at worksites and how to get there” was published in Straits Times on 29 April 2017. The article shed light on one of the three WSH hotspots which contributed to workplace accidents in 2016 and the possible measures to undertake to achieve Vision Zero.



## WORKPLACE INTEGRATED SAFETY & HEALTH, ENVIRONMENTAL AND SECURITY EVENT (WISHES)

Executive Director of WSH Institute, Dr Gan Siok Lin, was invited to speak about 'Total WSH', the approach to managing safety, health and well-being in the workplace at the WISHES event held at Republic Polytechnic on 14 August 2017. The event showcased students' Final Year Projects which featured WSH and Environment elements.



▲ Executive Director, WSH Institute, Dr Gan Siok Lin (left) and Mr. Seto Lok Yin, Deputy Principal for Industrial Services (DPIS), Republic Polytechnic.

## AGEING RESEARCH INSTITUTE FOR SOCIETY AND EDUCATION (ARISE) NETWORKING SERIES

Executive Director of WSH Institute, Dr Gan Siok Lin, was one of the speakers during ARISE's Networking Roundtable discussion on the topic of older workers. Attended by NTU faculty and research staff, Dr Gan shared with participants the concept of Total WSH – a holistic and integrated system to manage WSH in an ageing population.

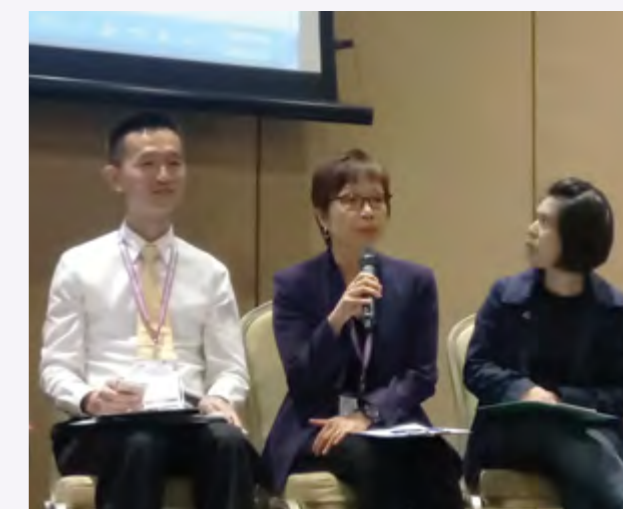


▲ Executive Director, WSH Institute, Dr Gan Siok Lin (left) with Acting Executive Director, ARISE Prof. Theng Yin Leng.

## THE 4TH SINGAPORE MENTAL HEALTH CONFERENCE 2017

The theme of the Conference, which was held on 8 September 2017, “The Art and Science of Wellbeing and Happiness” focused on two areas that influence one's mental health – state of wellbeing and happiness. Executive Director of WSH Institute, Dr Gan Siok Lin was invited to share on the topic of “Enhancing Mental Wellbeing in the Workplace”.

Dr Gan also presented on iWorkHealth, a web-based psychosocial health assessment tool that WSH Institute developed to evaluate resilience and stress in employment (ERASE) and encouraged the use of the Total WSH approach as a solution to manage psychosocial hazards.



▲ Executive Director, WSH Institute, Dr Gan Siok Lin, with other speakers of the conference session.

## 2017 WORK OVERVIEW



# Sharing of Knowledge on International Platform

### ASEAN-OSHNET WORKSHOP FOR THE IMPROVEMENT OF OSH SCORECARD AND INFORMATION SYSTEM



▲ Members discussing the proposed improvements.

The ASEAN-OSHNET Workshop for the Improvement of OSH Scorecard and Information System was organised by Department of Labour Protection and Welfare (DLPW), Thailand on 27-28 September 2017. The ASEAN-OSHNET Scorecard was developed in 2013 to collect and analyse data on national policies and strategies, national programmes, national OSH systems, occupational accidents and occupational and work-related illnesses of ASEAN member states (AMS). Mr Woon Cheng Peng, Deputy Director, WSH Institute and Miss Clare Chay, Head of Investigation, Ministry of Manpower participated in the workshop to discuss and propose further improvements to scorecard questions and system.



▲ Mr Woon Cheng Peng, Deputy Director, WSHI (left) and Ms Clare Chay, Head of Investigation, Ministry of Manpower sharing during the session.



▲ Er Go Heng Huat sharing Singapore's safety case journey at the 4th Hazards Asia Pacific Symposium in Kuala Lumpur.

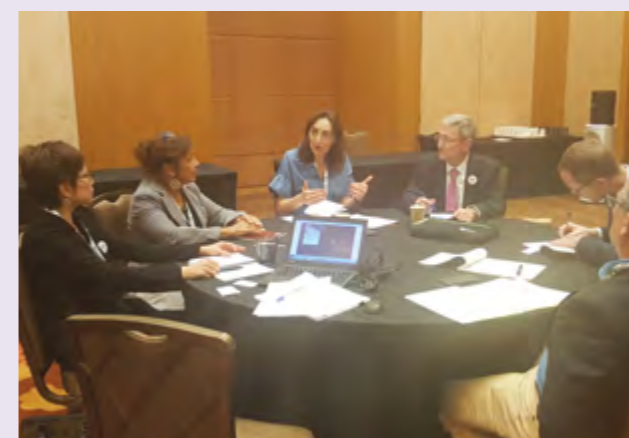
### 4TH HAZARDS ASIA PACIFIC SYMPOSIUM

The symposium was organised by the Chemical Industries Council of Malaysia (CICM) and the Institution of Chemical Engineers (IChemE) in Kuala Lumpur, Malaysia on September 26 - 28, 2017.

With the theme of "Process Safety, Now, More than Ever", the symposium provided a platform for international process safety practitioners, professionals and regulators to discuss the latest developments and best practices for process safety challenges. The discussions covered wide industry sectors including oil and gas, chemicals, food and pharmaceuticals. Delegates had an in-depth look at different process safety aspects, such as design, operations and maintenance, organisation and new frontiers in process safety.

Er Go Heng Huat, Director of the Major Hazards Department, was invited to be a keynote speaker. He shared learning points from Singapore's safety case journey and updated the delegates on Singapore's safety case implementation and progress.

### ISSA RESEARCH ON PREVENTION SECTION BUREAU MEETING



▲ Key members of the ISSA Research Section discussing the upcoming plans and activities.

Key members of the ISSA Research Section met on 6 September 2017 to discuss the upcoming plans and activities for the Bureau.

One of the identified workplans which WSH Institute will be involved in is on the validation study of the 'Evaluation of OSH Public Policy' i.e. Phase II of the study.

### GLOBAL PLAN OF ACTION ON WORKERS' HEALTH

WSH Institute collaborated with the World Health Organisation (WHO) to organise a meeting on the Global Plan of Action on Workers' Health. WHO provided an update of the progress made on the Global Plan of Action on Workers' Health (2008 - 2017). The session, held on 6 September 2017 provided a platform for WHO Collaborating Centres for Occupational Health to discuss the implementation of their programmes and to familiarize participants on the Sustainable Development Goals (SDGs) and WHO global health initiatives.



▲ (left to right) Ms. Esther Chong (WSHI), Ms Margaret Kitt (CDC, NIOSH), Dr Gan Siok Lin (WSHI), Dr Ivan D. Ivanov (WHO), Participant and Dr Julietta Rodriguez-Guzman (WDC).

## 2017 WORK OVERVIEW

# STRATEGY 2



## Implement an Effective Regulatory Framework

### OPERATION GYRFALCON

Ops Gyrfalcon was conducted from 29 May to June 2017 as part of ProBE Plus 2017. The operation covers Construction, Manufacturing, Marine & Transport and Storage industries as these industries have high incidents of accidents due to falls from heights.

The focus of the operation was on Work-at-heights on structures (including formwork) and roofs and means of access within the workplace. Selected companies were also pre-informed 2 weeks prior to the start of Ops Gyrfalcon.

A total of 563 inspections were conducted and this resulted in the uncovering of 300 plus contraventions and issuance of 4 Stop Work Orders. Total fines issues in this operation was more than \$114,000. Major offences that were identified are WAH related offences like open sides/openings not effectively guarded and unsafe scaffolds.



### OPERATION ROADRUNNER

Phase 1 of Ops Roadrunner was conducted in June 2017 as part of the ramping up of inspections by MOM in order to boost vehicle safety at work. A total of 101 inspections were targeted at Warehouses and Storage Yard and the focus of these inspections were on Traffic Management and Vehicular Safety. These inspections resulted in 242 Enforcement Action.

Phase 2 was conducted across July to September 2017, this time with more than 200 inspections in workplaces such as delivery services, large factories, and construction sites. The focus continued to be placed on traffic management issues, such as demarcation of pedestrian and vehicular traffic. While targeting the delivery sector, inspectors also looked at whether risk assessment has been implemented and communicated to delivery riders, including those on bicycles and PMDs. More than 200 enforcement actions were taken.



### OPERATION IBIS

Targeting works or machinery with amputation risks, Ops Ibis was conducted from September to November 2017. A total of 300 inspections were conducted in food manufacturing factories, metalworking factories, woodworking factories and construction sites. These were sectors that contributed significantly to amputation injuries. Areas of concerns include machine guarding, LOTO procedures, safe use of electrical hand tools and lifting operations.

### OPERATION BLACKHAWK

From 1 August 2015, all newly registered mobile cranes are required to be installed with data loggers, while existing mobile cranes are to be retrofitted by 1 August 2018. To ensure that the data loggers meet the required specifications and are effective in contributing to safer lifting operations, a specialised enforcement operation codenamed "Operation BlackHawk" was conducted by the Engineering Safety Branch of the OSH Specialist Department at worksites between the period of March to May 2017. A total of 80 offences under the Workplace Safety and Health (WSH) Act were uncovered with the top three contraventions as follows:

- Data loggers were not properly calibrated, failure to record parameters tested and unable to retrieve recorded data;
- Data retrieved from the data loggers revealed that pre-operational checks were not carried out prior to commencement of each work shift; and
- Occupiers failed to ensure that adequate safety measures were taken in respect of the use of the mobile cranes including occurrences of overloading of the mobile cranes.

The Engineering Safety Branch will continue to work closely with industry stakeholders to promote the early adoption of data loggers ahead of the implementation date on 1 August 2018. The Branch will also work with industry to promote active use of information recorded in the data loggers to mitigate the risks brought about by unsafe lifting operations.



# 2017 WORK OVERVIEW

## OPERATION SMOKED TURKEY

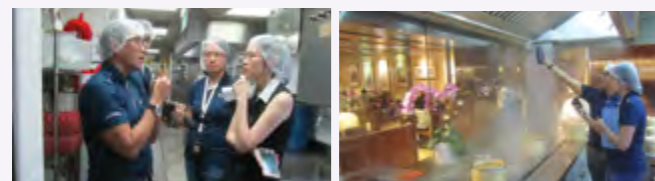
In November 2016, seven kitchen staff were overcome by elevated carbon monoxide levels in a restaurant kitchen and were subsequently sent to hospital. Following that incident, the Occupational Hygiene Branch of the OSH Specialist Department sent out advisories through WSHC's WSH Bulletin and NEA's e-Newsletter to the food & beverage industry to alert and raise the awareness of the hazards of cooking fumes in restaurant kitchens.

To supplement the advisories, the Occupational Hygiene Branch carried out a targeted enforcement operation codenamed "Operation Smoked Turkey" for the period of June to July 2017. The operation targeted major restaurant and hotel chains with heavy cooking in enclosed kitchens using gas-fired stoves. The objectives of the operation were as follows:

- to audit the adequacy and effectiveness of WSH measures relating to hazards of exposure to cooking fumes in enclosed kitchens;
- to assess and validate industry's compliance to local exhaust ventilation (LEV) requirements, as well as its effectiveness including the adequacy of the maintenance regime; and
- to raise industry awareness on the hazards of exposure to cooking fumes in enclosed kitchens.

From the Operation, it was observed that the restaurants inspected were generally lacking on the awareness of carbon monoxide hazards. This resulted in inadequate risk controls in place to address the hazards of carbon monoxide build-up within the enclosed kitchens. There was also a lack of industry capability on the proper use of LEV.

Following the Operation, a WSH Forum for Food and Beverage Industry was organised on 20 November 2017 in collaboration with the National Environment Agency (NEA), the Singapore Civil Defence Force (SCDF) and the Health Promotion Board (HPB). The Forum was intended to share the findings and recommendations of the Operation to the industry stakeholders to further cascade the learning points and best practices.



## WASTE OPERATION

The first quarter of 2017 saw an outbreak of fire incidents in the industrial waste treatment sector. In the wake of these fires, a targeted enforcement operation was launched by Major Hazards Department, jointly with NEA and SCDF.

Fourteen workplaces that carry out solvent recovery or fixation processes were identified for the enforcement operation which focused on risk management implementation, waste movement management and control of static discharge during transfer of flammable industrial waste. Enforcement findings revealed that the absence of static control measures, inadequate risk assessment and failure to implement GHS labelling formed the majority of lapses.

Findings from the enforcement operations were shared at a safety workshop for the industrial waste treatment sector to raise safety awareness and share good practices to better manage risks in industrial waste treatment facilities.



▲ MHD officers inspecting industrial waste facilities during enforcement operation in April 2017.

## ACCIDENT INVESTIGATION

Accident investigation is a key pillar in OSHD's regulatory framework. It is important that culpability of parties responsible for the incidents are determined so that the appropriate punitive action can be sought either administratively, or based on the WSH Act, to reflect the cost of poor safety management and to deter risk-taking behaviour. Critical findings and lessons learnt from accident investigations will be disseminated to various industry stakeholders for learning purposes.

Investigations of serious workplace incidents, such as fatalities and dangerous occurrences are carried out to uncover the root cause(s) of the incidents so as to guide the development and implementation of effective control measures and systemic interventions to prevent recurrences. Critical findings and lessons learnt from accident investigations will be disseminated to various industry stakeholders for learning purposes.

It is also important that culpability of parties responsible for the incidents are determined so that the appropriate punitive action can be sought either administratively, or based on the WSH Act, to reflect the cost of poor safety management and to deter risk-taking behaviour.

## WORKPLACE INSPECTIONS (NO. OF INSPECTIONS, SWO)

Inspections are an essential feature of the regulatory framework within OSHD as they help monitor the workplaces to ensure that they have basic safety and health standards in place and that employers are proactive in their management of WSH. The Occupational Safety and Health Inspectorate focuses on areas identified via the analysis of industry trends and WSH statistics.

Therefore, more inspections are targeted towards higher risk workplaces for greater impact. As a support to OSHD on this function, OSHD deploys an Auxiliary Enforcement Agency (AEA) to complement enforcement resources and maintain enforcement oversight on low risk workplaces.

Penalties that may arise from an enforcement inspection may include one or a combination of the following: prosecution in court, composition fines, notices of non-compliance, advisories, warning letters, stop-work orders and remedial orders. In addition, demerit points or other administrative measures may also be taken.

## OPERATION (CONSTRUCTION AND SURVEILLANCE) BRANCH

The Operations (Construction and Surveillance) Branch manages inspections at construction worksites and ensures that safety and health standards are met. In 2017, the branch embarked on various initiatives targeting at upstream interventions and improving effectiveness of targeted inspections.

Some of the initiatives carried out in 2017 include:

- D2E2 - initiating the Developer & Designer Early Engagement (D2E2) programme where developers of iconic and technically challenging projects are engaged by our officers at the early phases (concept and detailed design) of the project where we work with the developer on setting of targets, sharing of performance of contractors for the assessment of contractors as well as joint inspections at worksites when construction commenced. 5 pilot projects were initiated under the programme.
- Differentiated enforcement approach where resources for inspections were varied based on an assessment of attitudes and capabilities of contractors in the industry. By placing resources into where it matters most, the team was able to increase focus on poor performing companies. Initiatives such as informing companies on their current WSH performance and sharing on systemic improvements applicable to the company were also introduced as part of the approach.

- Use of Pre-Informed Enforcement Programme (PREP) to cover companies that had more than 3 or more contraventions relating to work-at-heights in 2016. These companies were pre-informed in advance of our inspections to allow them to have ample time to carry out improvements to all their worksites. While companies are pre-informed that we will be inspecting any one of their worksites, the actual worksite(s) inspected were not made known to the company.

The Business Under Surveillance (BUS) team manages companies that are identified with systemic issues. In 2017, the BUS team had improved on the implementation of the Continual Improvement Plan (CIP) that companies exiting from BUS had to develop and had carried out checks on these companies to ensure that standards were maintained.

## AUXILIARY ENFORCEMENT AGENCIES (AEAS)

We have engaged Auxiliary Enforcement Agencies (AEAs) to enable OSHD to maintain continual enforcement oversight and presence on medium to lower risk workplaces.

These workplaces including manufacturing, transport and storage sectors as well as other sectors. AEAs have conducted more than 10,000 inspections in FY 2017, complementing OSHI's enforcement efforts and extending our reach. During this year, AEAs focus on basic compliance of WSH such as the implementation of risk management, and also conducted targeted operations such as forklift operations.

## BEHAVIOURAL INSIGHTS - IMPROVING OSHD ENFORCEMENTS EFFORTS IN THE CONSTRUCTION SECTOR

OSHD explored the use of Behavioural Insights to redesign our enforcement efforts. The main objectives of the initiative was to reduce WSH offences at worksites and to be engage stakeholders as a collaborative partner to encourage them to take on greater WSH ownership.

The UDT (Understand Design Test) approach was applied to gather insights, propose interventions and to draw up a test plan to evaluate the effectiveness of the interventions. As part of the efforts under this initiative, companies were assessed based on level of capability and attitude and differentiated actions were taken based on the profile of the company.



# 2017 WORK OVERVIEW

## STRATEGY 2



## Legislative Reviews

### THE WORKPLACE SAFETY AND HEALTH ( MAJOR HAZARD INSTALLATIONS ) REGULATIONS

The WSH (MHI) Regulations 2017 which was enacted on 2nd May 2017 came into operation on 1st September 2017. The Regulations are introduced under the Workplace Safety and Health Act to implement a Safety Case regime for the Major Hazard Installations.

The key provisions of the WSH (Major Hazard Installations) Regulations are:

#### ■ Registration of MHIs

Under the Regulations, workplaces which carry out specific trade activities and possess dangerous substances at or above a specified threshold quantity will need to be registered as MHI prior to operation.

#### ■ Safety Case review and submission

The Regulations require MHIs to demonstrate the risk reduction measures in place are effective, reliable and the risks of major hazard accidents have been reduced to ALARP (As Low as Reasonably Practicable) to allow the installations to operate in a safe and sustainable manner.

In ensuring that the Safety Case is kept effective and updated, MHIs are required to maintain and submit a Safety Case for assessment once in every five years. In addition, MHIs are also required to review the Safety Case when there are new facts, knowledge or changes which are significant in preventing or limiting the impact of a major accident.

#### ■ Mandatory sharing of information:

To manage potential domino effects in the event of an accident, MHIs will be required to share information pertaining to the nature and extent of off-site risks if their operation could have off-site impact to other workplaces within the cluster. This will allow the workplaces to factor in this information in their risk management processes and emergency response plans.

#### ■ Notification and reporting of incidents

The proposed Regulations require MHIs to notify and report any process-related incidents which have led to explosion, fire or release of dangerous substances, including those which do not result in any injury or fatality. This serves to alert regulators about potential systemic issues within the MHI industry and the lessons learnt from such incidents can be shared with the industry.

In the development of the Regulations, industry consultations with key stakeholders in the MHI community were held to seek feedback and inputs on the legislative requirements. It was the close collaboration between MHIs, management representatives, safety professionals, trade associations and professional bodies that led to the successful introduction of the WSH (MHI) Regulations.



### AMENDMENTS TO THE WORKPLACE SAFETY AND HEALTH (WSH) ACT 2017

Singapore has made steady progress in our WSH journey. Through the collective efforts of the industry and tripartite partners, we brought down the workplace fatality rate to 1.9 per 100,000 workers in 2016. Our WSH 2018 target is now within reach, but we cannot be complacent.

The amendments to the Workplace Safety and Health (WSH) Act will entrench a stronger culture of prevention in WSH, and raise WSH competency of the workforce, to create safer and healthier workplaces for all. The amendments to Workplace Safety and Health Act will come into effect on 1 January 2018 except for the amendment to remove the requirement for Commissioner to accredit WSH training providers which will come into operation on 1 January 2019.

The key features of the amendments are to:

#### ■ Prevent unsafe practices from resulting in accidents and health risks at work

To reduce the incidence of potentially serious accidents that would likely result in death, serious injury or dangerous occurrence, MOM will be taking a tougher deterrent stance by prosecuting offenders, including first-time offenders, under the Subsidiary Legislation (SL), instead of imposing composition fines, which have lower fine amounts. To ensure that penalties are sufficiently high to deter non-compliance under the SL, the maximum fine will be raised from \$20,000 to \$50,000.

#### ■ Prevent the recurrence of accidents

To prevent recurrence of complex accidents, where the hazards involved are not well understood, and could be present in other companies, we need to ensure timely sharing of learnings from the investigation into such accidents. The WSHA amendment will now allow MOM to release a learning report on the causes of such incidents before criminal proceedings conclude so that the learning points are shared in a timely manner.

#### ■ Prevent WSH training courses from being outdated

Since 2015, MOM has been working with SSG and the WSH training industry to align the current WSH courses to the national Workforce Skills Qualification system and transfer the accreditation of WSH training providers to SSG. This will be completed by 2019. Having WSH training courses accredited under the SSG framework will benefit from more up-to-date teaching methods. With SSG being the single authority to accredit all WSH training providers, the amendment repeals the requirement for the Commissioner for WSH to accredit them with effect from 1 January 2019.

#### ■ Align personal liability protection with that in other legislation

The personal liability protection provision in the WSH Act will be updated to be in line with that accorded to inspectors and enforcement officers in other legislation, such as the Fire Safety Act and Environmental Protection and Management Act. This extends the scope of personal liability protection to the Commissioner, Deputy Commissioner, inspectors and authorised officers for acts done in good faith and with reasonable care in carrying out their duties under the WSH Act.

## 2017 WORK OVERVIEW

# STRATEGY 2



## Enhanced Regulatory Framework Through Technology

### BUSINESS PROCESS RE-ENGINEERING INITIATIVE ON INTRODUCTION OF PROCUREMENT ACTIVISTS

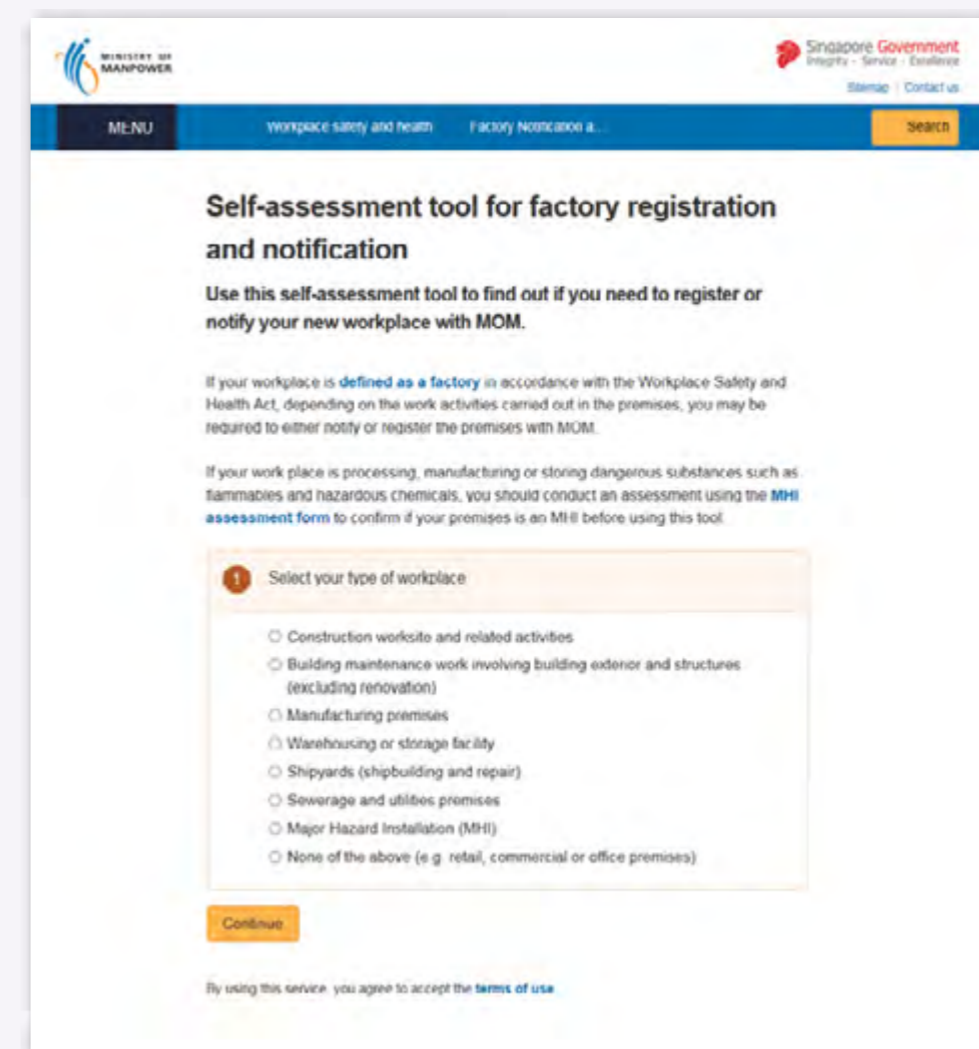
The Compliance & Resource Management Unit is in charge of the finances, office management, business continuity and internal compliance assistance to improve internal processes.

In 2017 the Unit spearheaded the cooperation with MOM HQ on the implementation of Procurement Activist through overseeing and providing the bulk of the Activists, which is an initiative that arose from the Business Process Re-engineering exercise conducted in early 2015. Procurement is an area whereby checks and balances are provided by approving authorities on one hand, while subject content owners set forth their requirements through clearing their proposals with their supervisors. In between, procurement processes and templates provide the agency through which procurement of goods and services are obtained. The role of the Procurement Activist is to facilitate operations efficiency and governance through providing advice, inputs, updates and feedback on the procurement process, which in turn facilitates the interaction between approving authorities and subject content owners.

In the role of ensuring basic operations efficiency in procurement, the Unit will both oversee and advise on the Government Electronic Business platform as well as MOM's internal electronic procurement workflow. In relation to this, its role is also to communicate and customize procurement update messages, and to provide feedback to HQ. HQ will also utilise the Activists in providing operational inputs & participate in drafting of new or revised SOP arising from changes in IM and internal guidelines.

In ensuring good governance, Activists will advise on appropriate procurement approach, processes and templates, as well as providing guidance on drafting approval papers, thereby ensuring that processes are administered correctly. With further preparation, Activists will also assume oversight of all contracts within Division and provide guidance on contract management / monitoring templates.

In doing so, the Unit together with its partner Activist in OSHI will improve the Division's competency level and governance role, and by working with HQ in synergy, maximize resources in procurement leading to positive business outcomes. OSHD Activists have attended two sessions of sharing and clinic session in April and June 2017 to further cement this synergy.



### SELF-SERVE FACTORY REGISTRATION/FACTORY NOTIFICATION WEB APPLICATION

Under the Workplace Safety and Health (Registration of Factories) Regulations, companies deemed as Factories are required to register their workplaces as with MOM. This enables the Ministry to have an oversight of medium to high risk workplaces in Singapore.

On 12 September 2017, the Occupational Safety & Health Division launched the online Self-Assessment Tool ('SAT') to help workplaces to ascertain if their premises are required to submit a factory registration or notification.

The SAT also guides the public to determine the correct factory licence type they should apply, based on interactive guiding questions on their work activities at their work premises. Over and above, companies will be guided by the SAT to the appropriate LicenceOne Portal to perform the Factory Registration / Notification transactions.

In all, the SAT has enhanced customer experience and enables self-help for factory registration or notification applicants, enabling companies to better fulfil with MOM's factory registration requirements.

# 2017 WORK OVERVIEW



## WORK INJURY COMPENSATION (WIC) ONLINE CALCULATORS

This year, the WIC online calculators saw a revamp to improve the user-friendliness to the public. Specifically, major changes were made to the Average Monthly Earnings (AME) calculator, which is the most widely-used of the 4 calculators. The principle underlying the enhancements was the need to make the AME computation simpler and easily understood by the claim parties. This is especially important when a claim requires the 3 key parties – claimant, employer and insurer – to agree on the AME that will be used in arriving at the WIC compensation amount. With the alignment of AME computation across all the parties, the revamped AME calculator has successfully helped to reduce the number of related disputes.

The screenshot shows the 'Average monthly earnings' calculator on the Ministry of Manpower website. It includes a disclaimer: 'All information from the calculator are only indicative and non-determinant to the Commissioner's assessment for a valid claim. The Commissioner holds the final decision on the actual computation.' The form has two input fields: 'Date of Commencement of Employment' and 'Date of Accident'. Below the form are buttons for 'Back to eCalculators', 'Reset', and 'Continue'. At the bottom, it says 'Last Updated: 16 March 2017' and has social media sharing icons.



## Penalties

### DEMERIT POINTS SYSTEM (NO. OF COMPANIES WITH DEMERIT POINTS SINCE THE ENHANCED DEMERIT POINTS SYSTEM)

Under the Demerit Points System (DPS), contractors in the construction sector can be given demerit points for breaching the Workplace Safety and Health Act. The number of demerit points awarded depends on the severity of the breach. DPS was enhanced in 1 July 2015 to increase its effectiveness as a deterrence tool to spur WSH improvements in the construction sector.

These 4 key changes to DPS has been effectively adopted since 1 July 2015 and they are,

- **Single-stage system**  
The DPS will be simplified into a single-stage system where accumulation of a pre-determined number of demerit points will result in debarment from employment of foreign workers.
- **Number of demerit points will be calibrated to deter employers from putting their workers to unnecessary risks at work**  
Under the enhanced DPS, the contractor would be issued 25 demerit points at the point of the Ministry's decision to prosecute. This will result in a 3-month debarment of company's access to all types of work passes for foreign employees.
- **Demerit points' validity extended to 18 months**  
To ensure that adherence to good WSH practices are sustained, companies will only exit the enhanced DPS after 18 months without further safety lapse, up from the current 12 months.
- **Restrictions on employment of foreign workers to be imposed at company level**  
Companies that are debarred from employing foreign workers will have such restrictions imposed company-wide, and not just at the affected worksites.

As of December 2017, 141 contractors have been issued with demerit points, 19 contractors are in phase 1 (> 25 points) and 1 contractor are in phase 2 (> 50 points); of which the former had been barred from hiring foreign workers for 3 months and the latter for 6 months.



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### BUSINESS UNDER SURVEILLANCE UPDATES (E.G. EXIT CRITERIA, LMRA)

The Business Under Surveillance (BUS) is a strategic enforcement programme that targets poor performing companies for close supervision.

It is designed to help these companies raise their WSH standards to a sustainable level so that they can effectively manage the risks associated with their work activities.

Companies may be placed on the BUS programme if they have had serious accidents at their workplaces, demonstrated poor WSH management (such as poor site conditions that resulted in Stop Work Orders), or accumulated demerit points.

BUS companies are required to carry out a gap analysis and to develop outcome-based action plans. OSHD then conducts frequent inspections and meetings with the company to verify the progress of the companies' implementation of their action plan and closely monitors the companies' WSH performance. They can only exit from the programme upon successful completion of the actions that they have committed to under their Action Plan, achieving satisfactory audit outcomes, demonstrated improvement to their WSH performance and have embarked on the CultureSAFE programme.

The BUS exit criteria was further tightened in May 2016 to include the practice of 'Last Minute Risk Assessment (LMRA) among workers and also to submit a continual improvement plan that will be monitored post exit from the BUS programme.

For 2017, the BUS programme helped to address the systemic weaknesses of more than 18 companies.

### THE ENHANCED WORK INJURY COMPENSATION ACT (WICA) ENFORCEMENT FRAMEWORK

Work Injury Compensation Department (WICD) has started and will continue to step up its enforcement on employers who failed to maintain adequate insurance to cover their liabilities and who fail to compensate their employees who were injured due to work. On 7 November 2017, Valiancy Enterprise LLP was convicted for 5 non-insurance & 1 non-payment of compensation offences and fined \$15,000 & \$5,000 respectively. These imposed sentencing from the State Courts were significantly higher than for previous prosecutions, where the median fines for non-compensation was \$3,000 and almost all the non-insurance charges were TIC (Take Into Consideration) together with the non-compensation charges.

WICD will also be stepping up enforcement on employers who fail to report work-related injuries within mandatory timelines.

In a nutshell, the Enhanced WICA Enforcement Framework is to consider

- prosecute employer for **non-insurance** in the 1st instance
- prosecute employer for **non-payment** of compensation by stipulated dateline
- issue composition fine for **non and late reporting** & prosecute in cases of cover-up the reportable accidents

To prepare employers, WICD will be reaching out to them through publications and infographics to remind them of their duties.

*"DWIC was quoted in the press release emphasizing that WIC insurance allows employees to claim for work injuries and protects employers against huge financial payout. The Ministry will not hesitate to deal severely with employers who do not purchase the insurance."*



## 2017 WORK OVERVIEW

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## Promote the Benefits of WSH and Recognise Best Practices

### bizSAFE CONVENTION 2017 - A HEALTHY WORKFORCE IN A SAFE WORKPLACE

More than 800 participants attended the 9th annual bizSAFE Convention on 14 February 2017 at Singapore Expo. Themed "A Healthy Workforce In A Safe Workplace", the Convention aimed to encourage employers to improve employee health and well-being and adopt bizSAFE, so as to ensure a safe and positive work environment.

23 companies and individuals of the bizSAFE Awards 2017 were also recognised for their contributions to raising WSH standards through bizSAFE.

At the event, Minister of State (MOS) for Manpower Mr Sam Tan highlighted how the bizSAFE programme has helped small- and medium- sized enterprises build strong capabilities in managing workplace safety and health (WSH) and the need for more companies to get on board the programme.

### WSH AWARDS 2017

The WSH Council recognised 172 organisations and individuals who have shown strong commitment in ensuring excellent workplace safety and health outcomes, at the Workplace Safety and Health (WSH) Awards held in Resorts World Sentosa on 25 July 2017.

Guest of Honour, Minister for Manpower Mr Lim Swee Say shared that workplace fatalities declined by 43% to 24 in the second half of 2016. In the first half of 2017, the number of fatalities continued to decline by another 21% to 19. But he encouraged everyone to maintain the "heat" to ensure that everyone will take workplace safety and health (WSH) seriously. He also shared that he hopes the stories of WSH Award recipients who have seen the "light" will inspire more companies to step up



▲ Minister for Manpower, Mr Lim Swee Say, giving his speech as the Guest of Honour at the WSH Awards 2017.

their efforts towards WSH. In particular, they have demonstrated ownership, partnership and innovation to ensure that our workers go home safe and healthy every day.

Mr Heng Chiang Gnee, Chairman of WSH Council encouraged all to adopt Vision Zero that all injuries and ill health are preventable. Sharing the theme of the WSH Council and WSH Institute Annual Report FY2016/2017, "Going Home", Mr Heng said that our family is the single biggest motivation for all of us to be safe and healthy at work. We need to take greater ownership of WSH and do more to engage all of our stakeholders. Safety and health is our collective responsibility.

### OSH SPECIALIST DEPARTMENT AWARDED LTA BEST SERVICE PARTNER AWARD IN LORRY CRANE SAFETY

In recent years, the media has reported several incidents involving the lifting arm of lorry cranes colliding into public overhead structures where the driver failed to stow the crane's boom before driving off after carrying out lifting operations.

In order to reduce the risk of similar occurrences in future, the Engineering Safety Branch (ESB) of the OSH Specialist Department collaborated closely with the Land Transport Authority (LTA) by providing technical expertise and the platform to swiftly implement the Audio Warning System, a new requirement imposed on all new and existing lorry cranes with effect from 1 January and 1 October 2017 respectively. This device emits an audio alarm when the crane boom is not fully stowed or raised above its maximum stowed height when the driver attempts to drive off. MOM Authorised Examiners (AEs) would be required to extend their scope during the yearly statutory examination with effect from 1 October 2017, to include functional checks on the boom stow limit switch, angle sensors and to ensure that the system is in proper working order. A technical circular was developed and issued by ES Branch to guide AEs on this extended scope. In appreciation for the efforts by the team, the ES Branch was awarded with LTA's Best Service Partner Award (Team) at LTA's Service Excellence Day on 20 July 2017.



### OSH SPECIALIST DEPARTMENT AWARDED PUBLIC SECTOR PRO-ENTERPRISE INITIATIVE AWARD – "REDUCED NOTIFICATION PERIOD FOR URGENT ASBESTOS-REMOVAL WORK"

The Occupational Hygiene Branch of the OSH Specialist Department was awarded the Public Pro-Enterprise Initiative Award for the period of September 2016 to February 2017 for reduced notification period for urgent asbestos-removal work. The Public Pro-Enterprise Initiative Award aims to recognise the work of officers and agencies who have contributed useful ideas or suggestions that create a pro-enterprise public service which can serve businesses better. Under the Workplace Safety and Health (Asbestos) Regulations, a work notification is required to be submitted at least 7 days before commencement of any asbestos-removal work. A new process was developed to allow companies to seek approval for immediate notification for urgent asbestos-removal work to be carried out at their workplaces. Work notification is submitted through the e-Services, which allows the notification to be received and reviewed promptly.



This initiative greatly benefits companies, particularly in the chemical and refinery process industry, who faced difficulties in meeting the regulatory requirement for urgent situations where they have pipes or equipment insulated with asbestos containing materials that are leaking. The asbestos insulations will have to be removed to investigate and contain the leak as soon as possible. This initiative allows companies to save on down-time for maintenance work in plant operation and during plant turn-over where they have tight schedule to meet.

MOM worked closely with the industry in the development of the new process to ensure industry can benefit from the initiative. Approval for reduced work notification period is also granted without compromising the intent of the regulations for stricter control on asbestos-removal work which is a high-risk work. The initiative was both pro-productivity for the industry, as well as for the agency. Companies are also encouraged to take up greater ownership of the WSH standards and outcomes at their workplace.

# 2017 WORK OVERVIEW

## STANDARDS PARTNER AWARD 2017



Quality and standards play an increasingly important role in today's world and is a critical pillar in Singapore's nation building. It has significantly improved the landscape in which we live in and work. More importantly, WSH-related Standards play a big role in our daily lives and make our workplaces safer and without risk to our health. Since the creation of SPRING, MOM through OSHD had always been involved with SPRING to develop such WSH-related Standards, and to promote the adoption and usage of the Standards at a national level.

The Standards Partner Awards 2017, jointly organised by SPRING Singapore, Singapore Standards Council and Singapore Accreditation Council, recognises standards partners who have dedicated their time and expertise to the Singapore standardisation programme. This time, 2 specialists from the OSH Specialist Department were proudly honoured with awards at the award ceremony on 16 August 2017.

Er Liew Wan Sein and Mr Christopher Toh were awarded the SPRING Singapore Merit Awards, recognising their commendable and significant contributions to both quality and standards programmes, through their commitment and resourcefulness in the development, promotion and implementation of standards and accreditation schemes.

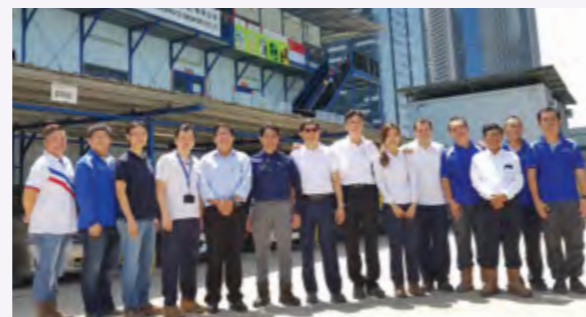
## 3D SCANNER EQUIPMENT DEMONSTRATION BY TRAFFIC POLICE



In July 2017, OSHD officers visited the Singapore Police Force, Traffic Police Division to learn about the use of 3D laser scanner for investigation work purposes. OSHD has been studying on the feasibility of harnessing technology to facilitate our investigation works, the 3D laser scanner is one such technology which will enables us to document the scene of accident in details.

The aim of this study visit is to assess the suitability of the 3D Laser Scanner for OSHD officers' investigation works and includes a demonstration by the Traffic Police showing us the process to reconstruct the accident scene from the information captured. From the visit OSHD officers gained invaluable knowledge and hands on experience in operating the 3D scanner. OSHD will continue to study on the feasibility of deploying this new technology in our future ground works.

## OSHD PARTICIPATED AS PANEL OF JUDGES IN LTA ANNUAL SAFETY AWARD CONVENTION 2017



Director OSH Specialist, Er Ismadi Mohd was part of the panel of three judges for the LTA Annual Safety Convention 2017 which was held on 4 September 2017. This award recognises LTA's contractors who have been proactive and successful in promoting workplace safety and health management practices at their worksites, ensuring high health, safety and welfare standards of the workers, and giving due consideration to protecting the public and the environment. As a panel of judge for the award, Er Ismadi conducted audits on several worksite to audit the contractors on their strength in managing safety and health of the workers.

## OSHD AND WSHC PARTICIPATED AS PANEL OF JUDGES AT THE SINGAPORE HEALTH AWARDS 2017

Er Ismadi Mohd, Director (OSH Specialist) Department and Mr Patrick Han, General Manager, Workplace Safety and Health Council were part of the panel of judges for Singapore Health Award 2017 which was held on 10 October 2017. The award, initiated by the Health Promotion Board (HPB), recognises organisations with strong commitment to promote workplace health. This year, 223 firms and individuals received awards at the ceremony. As a panel of judge for the award, Er Ismadi played a crucial role to the awards programme, providing the independence needed to select the award recipients.



# Research, Studies and Learning

## SHARING ON KAROSHI BY RESEARCH CENTER FOR OVERWORK-RELATED DISORDERS (RECORDS), NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH, JAPAN (JNIOOSH)



▲ Participants from OSHI, WSHI, WICD, OH, OM who attended the half-day sharing session.

On 8 September 2017, Dr. Toru Yoshikawa, Acting Director of Research Centre for Overwork-related Disorder of the National Institute of Occupational Safety and Health, Japan (JNIOOSH) shared about the investigation, methodology and process of identifying Karoshi cases and the assessment tools used to determine the cases. The in-depth discussion provided participants with information about JNIOOSH's experience about management of KAROSHI and possible application in Singapore's context.

## WSH RESEARCH COMMISSIONED

### COMPLETED PROJECTS

#### Prototype FPSWizard: A design support system to improve the selection and design of personal fall protection systems

The WSH Institute commissioned the National University of Singapore to conduct a research project to develop a web-based personal fall protection system (PFPS) design support system, FPSWizard to facilitate improvements in fall protection design.

#### Evaluation of WSH Culture Building Programme

WSH Institute was commissioned by WSH Council to conduct this in-house research project to evaluate the effectiveness of the CultureSAFE programme.

#### 2nd Study Of The Healthcare Industry

The first study was conducted by WSH Council (Healthcare) Committee in 2009. In 2017, WSH Institute was commissioned by the Healthcare Committee to identify focal areas for improvement.

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### ONGOING RESEARCH PROJECTS

#### Prototyping Total WSH Services Centre at Woodlands East Industrial Estate

On 1 July 2017, WSH Institute trialled a two-year on-site Total WSH Services centre in an industrial park for about 475 SMEs employing about 3000 workers. These factories include food manufacturing and wholesale, metal working, engineering and construction companies.

The Total WSH Services centre will aid 50 SMEs to complete at least one cycle of the Total WSH cycle which includes holistic WSH risk management. In addition, all workers in the industrial park will have access to Total WSH services which includes WSH counselling, advice, etc. The prototype is to determine the feasibility and value-addedness of providing an on-site Total WSH service centre to SMEs located in an industrial estate.

#### Study On WSH Ownership Leading To A Mindset And Behaviour Change

The three-year WSH Institute study led by the NTU-WSH Institute Research Centre commenced on 1 February 2017. The research project aims to:

- conceptualize the definition of WSH ownership;
- provide 15 case studies for industry learning, to motivate companies, management and workers to improve their level of WSH ownership;
- gain better understanding on the profile and prevalence of WSH ownership personas in the industry;
- provide evidence-based communications solutions to build WSH ownership; and
- develop a national WSH ownership index

#### Healthy Use Of New Display Screen Equipment

The WSH Institute commissioned the Institute of Occupational Medicine (IOM) Singapore Pte Ltd to conduct a research project "Healthy use of new Display Screen Equipment" (HEADSE). The HEADSE study aims to determine the association between usage of new display screen equipment (DSE) and adverse health and safety outcomes.

#### Heavy Vehicle Drivers Work-Related Traffic Accidents (HEVWA)

WSH Institute commissioned this in-house research project to quantify the different factors which contribute to the risk of Work-related Traffic Accidents (WRTA) amongst heavy vehicle drivers, including work arrangements and work practices.

#### Vocational Riders Work-Related Traffic Accidents (RIWA)

This in-house research project aims to quantify the different factors, including work arrangements and work practices, which contribute to the risk of WRTA among vocational riders.

#### Evaluating Resilience and Stress in Employment (ERASE)

This WSH Institute research project is conducted in partnership with Changi General Hospital, Health Promotion Board, Institute of Mental Health and the Workplace Safety and Health Council. It serves to:

- develop and validate a psychosocial health assessment tool called iWorkHealth;
- determine the prevalence of work-related stress and the types of workplace stressors; and
- monitor the effectiveness of preventive measures using the tool.

#### Total WSH Case Study At Paya Lebar Quarters

A case study collaboration with Lendlease to implement Total WSH at their worksite.

### SOLUTIONING SESSIONS

#### "Solutioning Session" on Amputations at Work

As part of understanding and exploring deeper into the causes of amputations and possible solutions, WSH Institute in collaboration with MOM, held a focus group discussion (FGD) on 24 May 2017. The participants who were from 20 companies comprised of management, WSH Officers, Union leaders, WSHC Committee representatives from the Construction, Marine, Metalworking & Manufacturing and Food & Beverage sectors. Guided by actual case studies, the participants brainstormed and identified possible solutions. The report of the session can be downloaded from the WSH Institute website.



## Involvement in Outreach Seminars and Forums

### MANDARIN WSH FORUM ON WORK AT HEIGHTS

Some 90 senior management level participants from SME construction companies attended the WSH Forum on Work At Heights conducted in Mandarin on 17 July 2017. The lunchtime forum was specially organised for busy SME Chinese-speaking bosses who may not have the time to attend a typical half day forum conducted in English.

MOS Sam Tan delivered the opening speech covering the recent collapse of a viaduct under construction along Upper Changi Road East towards PIE, enforcement highlights on Ops Gryfalcon and WAH initiatives like the Mobile WAH Clinic that could help companies adopt safe WAH practices. Mr Lim Cheong (OSHI) shared with participants past fall from height case studies, in particular ladder safety and measures they could take to mitigate WAH risks at the worksite. Dr Goh Yang Miang (NUS) shared his academia perspective and various WAH challenges faced by the industry and how SME contractors could implement these measures given their tight resource constraints.

Many participants shared it was a good platform to learn about WAH Safety and hazards in a language they can understand. They gave feedback that it was a good channel for authorities to reach out to non-English speaking community and build rapport on the ground. They hope more of such forums could be organised so that their counterparts could benefit from these learnings and build their WSH awareness.



▲ Minister of State for Manpower, Mr Sam Tan, giving his opening speech at the bizSAFE Convention.

### WSH FORUM FOR FACILITIES MANAGEMENT SECTOR 2017

More than 300 FM practitioners and stakeholders across diverse industries from Construction, Marine, Oil and Gas to Healthcare, Hospitality and Real Estate attended the WSH Forum for Facilities Management (FM) Sector 2017 on 6 October 2017. Organised by WSH Council and MOM, the forum saw participants learnt of various safety and health issues that are critical to the smooth running and management of their premises. From case study sharing, best practices to fire safety and security, the forum raised critical awareness of WSH issues so that premise operators have a better understanding of their roles and responsibilities as well as the know-how to implement appropriate preventive measures.

The forum also featured an interactive panel discussion moderated by WSH Council (Facilities Management) Workgroup Chairman, Mr Daniel T'ng. Questions posed by participants were candid and ranged from ground issues like inspection frequencies of safety equipment to management concerns of embracing Vision Zero against business productivity and profit. Participants feedback that the forum was useful in raising WSH awareness and highlighted the importance of such platforms for industry to be updated regularly of WSH developments and best practices.

The forum was part of the Architectural and Building Services Exhibition organised by the Conference and Exhibition Management Services (CEMS). The 3-day expo at the Sands Expo and Convention Centre from 4th to 6th October 2017 for the building, construction and facilities management industry saw the congregation of 6 trade exhibitions under one roof. The 6 exhibition (iFaME, ArchXpo, Fire and Disaster Asia, LED+Light Asia, Safety and Security Asia and Work Safe Asia) showcased relevant products and services for the industry.



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### WSH FORUM FOR LANDSCAPE SECTOR

The WSH Forum for Landscape sector organised by WSH Council (Landscape) Sub-committee on 11 November at Singapore Expo attracted more than 100 participants from the Landscape industry who were updated on the latest WSH developments that would impact the industry.

In the opening address by Dr Leong Chee Chiew, Chairman of WSH Council (Landscape)

Sub-committee, he emphasised the importance of industry collaboration to reduce the workplace fatal injury rate to less than 1.0 by 2028, the target set by PM Lee Hsien Loong at the XXI World Congress on Safety and Health at Work. Dr Leong also elaborated on the need for the industry to build a culture of prevention and take ownership of workplace safety and health issues.

During the forum, Landscape Industry Association (Singapore) or LIAS shared on the upcoming changes in the WSH Guidelines on Landscape and Horticulture, such as inclusion of confined space hazards and enhancements made to management of Occupational Health hazards. National Parks Board (NParks) also shared the lessons learnt from accidents that happened in the landscape sector. Following the sharing by LIAS and NParks, MOM presented how heat stress could be better managed for landscape works, as well as the good practices to ensure safe use of lorry cranes. The forum ended with an interactive and insightful Q&A session.

### WSH FORUM FOR FOOD AND BEVERAGE INDUSTRY - SAFE WORKING IN KITCHENS

More than 200 employees and staffs from hotels, restaurants and catering services attended the Workplace Safety and Health Forum for Food and Beverage Industry - Safe Working in Kitchens on 20 November 2017 held at the JTC Summit Auditorium.

Organised by the OSH Specialist Department and supported by the WSH Council, the forum aimed to raise WSH awareness for the food and beverage sector and showcase best practices by industry practitioners.

In his opening address, Director, OSH Specialist Department, Er Mohd Ismadi, highlighted the importance of identifying

safety and health hazards in the kitchens, including the hazards of exposure to airborne contaminants, such as carbon monoxide (CO) hazard. More efforts would be needed to raise the awareness of CO hazard among the kitchen staff and manage emergency situations arising from carbon monoxide accumulation. Specialist George Goh also shared on the findings and recommendations from the targeted inspections conducted on commercial kitchens, focusing on risk assessment and control measures to reduce the risk of exposure to CO.

The forum was supported by speakers from various government agencies including NEA, SCDF and HPB, sharing on updates applicable to the food and beverage industry. There was also an in-depth sharing by an industry speaker from Mandarin Oriental on their experiences in managing kitchen safety and good practices implemented in their hotel restaurant.

Booths were set up to help participants better understand the different types of monitoring equipment available. Participants showed great interest to learn more on how such equipment can be used for kitchen settings.

A Question and Answer session chaired by Dr Kenneth Choy (Deputy Director Occupational Medicine) was organised at the end of the forum to further engage the audience and share perspectives on the topic. The forum was well-received by participants who had gained useful insights, both in WSH requirements and industry best practices.



### WSH CULTURE AND LEADERSHIP DIALOGUE SESSION

On 12th January 2017, the WSH Council, Enterprise Capability Building (ECB) Branch held a WSH Culture and Leadership Dialogue Session at Concorde Hotel. In total, 58 business leaders representing over 50 organisations attended this session. These bizSAFE Level Star companies hail from the various industry sectors that include Marine, Construction, Engineering, Facilities Management, Training Centres and Security Firms.

Mr Patrick Han (Executive Director, WSH Council) kicked off the dialogue session by encouraging the senior management to take the lead to foster a progressive WSH culture beyond their Level Star status and on the importance of having a strong WSH Culture in the workplace.

During the session, Mr Wong Fong Loy, Senior Assistant Director for ECB presented on how organisations can build and sustain WSH culture through the CultureSAFE programme. Immediately after, the business leaders were engaged in an open and active dialogue as they shared their views and concerns with regard to WSH culture within their organisation as well as the benefits and positive impacts of WSH culture.

Mr Winston Yew (Deputy Director, Industry Capability Building) closed off the session by re-emphasizing the importance of having a strong WSH culture in the workplace and encouraged the participating companies to be bizSAFE Partners, so as to help promote WSH to their value chain and together, help build a safer workplace for everyone.

Overall the WSH culture and leadership dialogue session was a success and well received by the participants.



▲ The dialogue session was well received by the participants from SP Powergrid Limited.

### MOS-CEO WSH DIALOGUE FOR CLEANING INDUSTRY

MOS Sam Tan had a dialogue with 16 management representatives from cleaning sector on 22 March 2017 to garner their commitment to improve WSH performance. This is the 8th MOS-CEO dialogue session that WSH Council has organised to engage senior management to be more committed to WSH.

MOS Sam Tan stressed that if WSH was not taken seriously, life-threatening incidents could happen. He urged all of them to promote WSH as a way of life at work.

As part of the dialogue programme, Mr Thomas Teo from OSH Inspectorate shared on the recent fatal incidents and common WSH contraventions in the cleaning sector. With mechanisation and automation, he shared that the current hazards in the cleaning sector may evolve and urged everyone to do risk management. He also stressed that WSH should be taken into consideration at all stages of waste collection.

The participants appreciated MOS Tan's interest in their WSH performance and taking time from his busy schedule to talk to them. They also learnt about the various programmes and funding such as WorkPro that they could tap on to re-design their work processes and improve their WSH performance. The event has inspired them to do more to protect their workers.



▲ MOS Sam Tan urging the participants to promote WSH as a way of life at work. Do "message".





# 2017 WORK OVERVIEW

## CONSTRUCTION WSH LEADERSHIP ROUNDTABLE



On 21 July 2017, leaders from 8 construction-related associations gathered for the Construction Workplace Safety and Health (WSH) Leadership Roundtable to share progress of their WSH action plans and discuss areas to improve the construction sector's WSH performance. Organised by the WSH Council, the roundtable is a follow-up from the Construction WSH Leadership Summit 2015 where the association leaders re-affirmed their commitment to reduce the construction fatality rate to less than 1.8 per 100,000 workers by 2018.

At the Roundtable, participants shared the key WSH Action items that was driven by their own Associations since the Summit. They also discussed issues such as adopting Design for Safety in tackling WSH risks and the importance of a Project Safety Coordination Committee (PSCC) for all worksites to drive better onsite co-ordination, planning and communication.

Acknowledging that there was no room for complacency on construction safety as evident from the 14 July uncompleted viaduct collapse incident, association leaders called for greater collaboration and better coordination among stakeholders in the construction value chain.

## INAUGURAL MEETING FOR RETURN TO WORK

On 23 June 2017, WSH Council met with Tan Tock Seng Hospital's (TTSH's) CEO, Dr Eugene Soh, and MOM DS(D), Mr Kok Ping Soon, in anticipation of the launch of the Return-To-Work (RTW) Programme in October 2017. At the meeting, DS(D) Mr Kok Ping Soon shared international approaches and the impetus for the provision of RTW services. He further explained that the decentralised approach was best suited for Singapore as our injured workers are admitted to restructured hospitals island-wide for acute injury management, hence occupational rehabilitation and customised case management services can be offered to them through hospital-based RTW coordinators to ensure that they can return to work safely and timely.

TTSH's CEO shared the hospitals' shift in focus towards a population-based model of care, providing holistic medical care and promotion of workplace health to various population groups, including the workforce and monitoring not only medical but functional outcomes and return to quality of life. TTSH had also shared that there would be a new 600-bed rehabilitation hospital ready in 3-4 years' time which would focus on tertiary rehabilitation, including RTW and return to quality of life. With this alignment of interest between MOM and TTSH, DSD had also gathered support from TTSH's CEO for TTSH to host the official opening of the first RTW centre in Singapore.

## JTC (BIOPOLIS) SUSTAINABILITY EVENT AND BIZSAFE CEO BREAKFAST DIALOGUE 2017

The WSH Council took an active part in the Sustainability Roadshow jointly organised by NEA and our bizSAFE Partner JTC on Thursday, 24 August 2017.

The roadshow engaged tenants of Biopolis in sustainability and recycling solutions, in addition to good workplace safety and health practices.

To support our bizSAFE Partner, WSH Council complemented the roadshow with a bizSAFE Level 1 CEO Breakfast Workshop, conducted in a training room on-site. Targeted tenants of Biopolis as well as special invitees from the Logistics and Transportation sector attended the workshop. All attendees were inspired to continue their bizSAFE journey and to put in place good WSH practices in their workplaces.



## CEO BREAKFAST DIALOGUE SESSION

On 25th October 2017, the WSH Council, Enterprise Capability Building (ECB) Branch held a WSH Culture and Leadership Dialogue Session at Concorde Hotel. In total, 60 business leaders representing over 57 organisations attended this session. These bizSAFE Level Star companies hail from the various industry sectors that include Marine, Construction, Engineering, Facilities Management, Training Centres and Security Firms.

Mr Winston Yew (Deputy Director, WSH Council) kicked off the dialogue session by encouraging the senior management to take the lead to foster a progressive WSH culture beyond their Level Star status and emphasised the importance of having a strong WSH Culture in the workplace. Mr Yew also reiterated the need to actively engage their contractors through the bizSAFE Partner programme, and help build their contractors' Risk Management (RM) capability through bizSAFE.

Ms Siew Yoke Teng from Chenhue Enterprise Pte Ltd was invited as a guest speaker to share the challenges her organisation faced on the WSH culture building journey and how their companies have benefitted from it along the way. The second guest speaker, Mr Mohamed Barak from Bintai Kindenko Private Limited shared his company's winning formulae for achieving the local Workplace Safety and Health (WSH) Awards and international ROSPA Awards, through the bizSAFE and bizSAFE Partner Programme.

During the session, Mr Wong Fong Loy, Senior Assistant Director for ECB presented on how organisations can build and sustain WSH culture through the CultureSAFE programme, and how organisations can benefit by being a bizSAFE Partner. Immediately after, the business leaders were engaged in an open and active dialogue as they shared their views and concerns with regard to WSH culture within their organisation as well as the benefits and positive impacts of WSH culture.

Mr Winston Yew (Deputy Director, Industry Capability Building) closed off the session by re-emphasizing the importance of having a strong WSH culture in the workplace and encouraged the participating companies to be bizSAFE Partners, so as to help promote WSH to their value chain and together, help build a safer workplace for everyone.

Overall the WSH culture and leadership dialogue session was a success and well received by the participants.



## REDAS WSH LEADERSHIP SEMINAR



Supported by the WSH Council, the Real Estate Developers' Association of Singapore (REDAS) WSH Leadership Seminar, held on 27 October 2017, demonstrated the leadership role and firm commitment of developers to good WSH safety culture and practices. In his address, Minister of State (MOS) Mr Sam Tan also acknowledged REDAS's efforts to meet the target fatality rate of 1.8 per 100,000 by 2018 set at the Construction WSH Leadership Summit 2015.

Various industry speakers shared their project experience and learning points on addressing risks throughout the design and construction stages, including temporary works required, phasing and sequence of works and design for future safe maintenance and demolition. Close to 100 participants benefitted from the event.

## PILOT LAUNCH OF WSH DATABASE FOR INSURERS

The WSH Database for insurers aims to consolidate WSH information of companies from participating insurers, the Ministry of Manpower (MOM) and WSH Council to enable:

- Insurers to segment its corporate clients based on WICA claims records; and
- Help drive WSH improvements through premium differentiation.

A briefing was held on 19 January 2017 for the 6 insurers who are participating in the pilot launch of the WSH Database for Insurers, together with the insurance brokers. The 2 groups were reminded on the background to the project, and briefed on how to manage client concerns. A system walk-through was also conducted to familiarise them to the workings of the database.

On 10 March 2017, the database was launched with six insurers onboard.

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### DIALOGUE WITH MANAGEMENT OF HEAVY VEHICLE COMPANIES



Continuing the efforts to engage the heavy vehicle community on road safety, Traffic Police, in collaboration with WSH Council and MOM, organised a dialogue with the senior management of heavy vehicle companies on 24 July 2017. More than 100 participants attended the event.

Traffic Police shared on the situation of heavy vehicle traffic accidents. Mr Thomas Teo from MOM Occupational Safety and Health Inspectorate (OSHI) then shared on the employers' responsibilities and measures that can be taken to ensure the safety of their drivers on premises as well as on the roads.

Following the presentations, MOM Director of OSHI, Mr Chan Yew Kwong, and Chairman of WSH Council (Logistics and Transport) Committee, Mr Tan Puay Hin, joined Commander Traffic Police, SAC Sam Tee in the panelists for the dialogue session with the participants. Issues raised included training, continuous education and use of technologies to improve driving behaviour. Commander Traffic Police impressed upon the audience that it was in the interest of the Traffic Police and MOM to work hand-in-hand with the industry to engender a safer road for all.

As an industry practitioner, Mr Tan Puay Hin shared his own journey of raising WSH standards at PSA Corporation and emphasised that top management's leadership and ownership for WSH were important. He also shared the WSH Council (Logistics and Transport) industry committee's workplan to improve vehicular safety.

To help the participants to improve their WSH practices, each participant was provided with relevant WSH collaterals with courtesy from WSH Council.

### GATHERING WSH INSIGHTS FROM MAJOR DELIVERY COMPANIES

To better understand the delivery sector in light of the rising number of work related traffic accidents, WSH Council, WSH Institute and Ministry of Manpower collaborated with Traffic Police to hold an engagement session with major delivery companies such as Hanbaobao Pte Ltd, Pizza Hut, Dominos, Singapore Power, Orange Force and Uber Eats. The companies shared their current practices in safeguarding the life of their riders.

While the safe practices do not differ much from one company to another, most would provide basic safety training to their riders, such as regularly training, daily briefings and personal protective equipment (PPE). Some companies would do more by requiring their riders to attend yearly defensive training, providing full PPE and vehicle/helmet-mounted cameras.

The companies agreed to share their best practices with other companies in their industry sector when there is an opportunity. For a start, they participated in the Ride Safe 2017 event organised by Traffic Police on 19 August 2017.

It was a valuable sensing session for us. The insights gathered will be used to develop strategies to help the delivery sector improve their WSH practices so that their workers can go home safe and healthy at the end of every work day.

### SISO SEMINAR ON INCIDENT REPORTING AND WORK INJURY COMPENSATION (WIC)

The Singapore Institution of Safety Officers (SISO) invited Work Injury Compensation Department (WICD) to give a presentation at a seminar on 3 August 2017.

WICD's Head Investigation, Mr Ivan Wong, shared salient sections of the Work Injury Compensation Act (WICA) and showcased recent prosecutions against employees and employers who filed fraudulent claims and who failed to buy WIC insurances respectively. The importance of timely incident reporting and the stepping up of enforcement actions against offenders who do not comply with WICA were also emphasized.

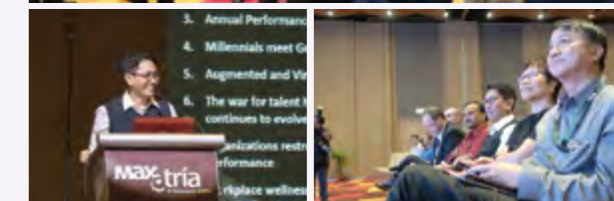
The event was well attended by 48 Workplace Safety and Health Officers (WSHOs) and Human Resources Managers & Executives.

### NUS LAW STUDENTS' ATTACHMENT - WORK INJURY COMPENSATION DEPARTMENT (WICD)'S ONGOING OUTREACH AND AWARENESS INITIATIVE

The NUS Law internship aims to provide a more balanced view of our foreign worker policies among students that are passionate about foreign worker's issues and creates more positive views of MOM's work. Following 2 successful runs conducted in 2015 and 2016 in which students provided positive feedback on the fruitful and enriching experience, a third run was organised and held from 24 July 2017 to 2 August 2017.

WICD presented on an overview of the Work Injury Compensation Act (WICA) to help the students better understand the entitlements and claims process of workers with work injury claims. On outreach and engagement, we shared our communication objectives which is to educate our key stakeholders, employers and employees on their work injury compensation rights and obligations towards ensuring WICA compliance. The students appreciated our outreach efforts which include dormitory road shows, newsletter, comic strips, WICA guidebooks in multiple languages and many more.

The students were also given the opportunity to attend Pre-Hearing Conferences on claim resolution and observe walk-in cases for Bangladeshi workers with work injury claims. Lastly, the program ended with 3M Innovation Singapore Pte Ltd which was invited as an industry guest speaker to share with the students on their in-house management of their injured employees and the safety and rehabilitation program in place for them.



### THE INAUGURAL WORKPLACE SAFETY AND HEALTH (WSH) TECHNOLOGY SYMPOSIUM 2017

Future of Workplace Safety and Health (WSH) - Technology-Driven Prevention, the theme of the Inaugural WSH Technology Symposium 2017 by Ministry of Manpower (MOM) held on 18th January at the Singapore Expo Max Atria. The Symposium is a call for action to everyone to come together and embrace technology to sustain, protect and promote WSH in the current challenging and progressive operating landscape.

Guest-of-Honour, Minister of State (MOS), Mr Sam Tan opened the event to more than 400 business leaders, industry practitioners, and WSH professionals, with a Virtual Reality Sequence to showcase how technology can play an important role to tackle WSH issues. He also shared examples of how technology can help with safety training, monitoring and evaluating workplace practices as well as developing tools to eliminate WSH risks. For example, at the Building Leadership Simulation Centre in Melbourne, which he visited recently, supervisors and workers learn to deal with worksite challenges in a risk-free virtual reality simulation. Mr Tan also shared on other examples on successful technological adoption. This includes applications in Crane Safety, Vehicular & Traffic Safety as well as WSH Management Systems. "Let us embrace and harness technology to push new frontiers to bring about safer, healthier and more productive workplaces for our workers in a manpower-lean workforce," MOS Sam Tan said.

A total of 7 speakers and 14 technology enterprises participated in the Symposium. They showcased and demonstrated a suite of disruptive innovations and solutions from various technology spheres such as automation, applications, transportation and many others that can game-change the way workplaces manage WSH-related issues to raise their level of WSH performance.

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### OSHI SEMINAR

More than 200 participants attended the OSHI Seminar, held on 13 February at Furama City Centre. The seminar aimed to raise awareness on common contraventions and failures observed in accident investigations. It also served as a platform to share past WSH fatal accidents and the lessons learnt from the accident investigations with the industry.

WSH accident case studies and key WSH lapses from both construction and general workplaces were shared with the participants. The key objective of such sharing is to remind participants of the importance of ensuring effective management and supervision of work activities, in particular, the conduct of Risk Assessment and implementation of appropriate risk control measures and safe work procedures.

Participants were also reminded that top management played an important role in ensuring safety and health in their workplaces and in driving the message down to all levels that safety must not be compromised.

Overall, the session was well received and participants' feedback that the OSHI Seminar provided a good platform for the industry to learn more about WSH accidents and how to prevent such recurrence at their workplaces.

On a positive note, some participants also took the opportunity to give praise to MOM's regulatory efforts in driving for safe and healthy workplaces. The seminar ended with a clear note that the industry as a whole had to step up and to take ownership to allow for further improvements to safety and health in Singapore.



### MANAGEMENT OF ASBESTOS HAZARD IN OLD BUILDINGS

Buildings built before 1 January 1991 may contain asbestos or asbestos-containing materials (ACMs) such as roof sheets, ceiling boards, insulation boards, wall partitions and claddings, ventilation panels, and vinyl sheets. Asbestos fibres can be released into the air when ACMs are disturbed during demolition and renovation of buildings or when carrying out maintenance work in buildings or at workplaces. Exposure to asbestos fibres may cause fatal lung diseases such as asbestosis, mesothelioma and lung cancer. It is important to properly identify and manage asbestos in buildings and workplaces to prevent exposure.

There were several cases investigated in 2017 where contractors had started work without conducting asbestos survey. In one of these cases, asbestos ceiling boards in an annex building of the house was badly damaged during the repair of the roof, which resulted in the entire residential compound being contaminated with asbestos debris. A Stop Work Order was issued to the occupier and the affected areas were required to be properly cleaned up and decontaminated before further works could be carried out. The project was greatly delayed due to the extensive decontamination works required for the site to ensure workers were not further exposed to asbestos fibres. Continued efforts to raise awareness on asbestos hazards was necessary to reach out to various stakeholders.

This year, the engagement efforts on asbestos hazard were extended to contractors carrying out maintenance work in old buildings. Tradesmen such as mechanical and electrical technicians, facilities personnel, roof repair workers and renovation contractors, are at risk of exposure when asbestos is not identified before carrying out work in old buildings. An industry engagement session was held with the Specialist Trade Alliance Singapore (STAS) at its Networking Reception in May 2017 to highlight the importance of identifying ACMs before carrying out work and take the necessary precautionary measures when working with or near asbestos.

The Occupational Hygiene Branch of the OSH Specialist Department has also collaborated with government agencies owning or managing old buildings to prevent asbestos exposure during work. For example, the Branch worked with the Housing Development Board (HDB) to develop safe working method for replacement of refuse chute hopper involving asbestos during Home Improvement Projects. Town councils and their contractors were also engaged to ensure cleaning and waterproofing of refuse chute inner walls containing asbestos were safely carried out. The Branch also worked closely with the Singapore Land Authority (SLA) on asbestos management in State properties including asbestos survey requirements and the preventive measures during maintenance and repair works. The Branch also collaborated with the Urban Redevelopment Authority (URA) to take into consideration asbestos hazard during the conservation of buildings.

MOM and the National Environment Agency (NEA) has also jointly developed a process workflow and an advisory to provide further guidance to home owners on the proper management of asbestos.

Moving forward, MOM also worked with other government agencies to form an inter-agency taskforce committee to strategize the management of asbestos in old buildings.



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## REVAMPED WORK INJURY COMPENSATION PUBLICATIONS

Our Work Injury Compensation (WIC) publications took on a fresh new look with content updates, including the latest legislative changes in the WIC Act. To make it reader friendly, the revamped publications are repackaged with information in bite-sized formats and more visuals. The Employer guidebook is available in the 4 official languages while the employee version comes in 8 languages comprising English, Chinese, Malay, Tamil, Bengali, Burmese, Hindi and Thai. These publications serve to educate employers and workers on their WIC responsibilities and duties and can be downloaded from MOM website.

Employee guidebooks.



Employer guidebooks.

## REITERATING THE MESSAGE ON TIMELY INCIDENT REPORTING

Under the Work Injury Compensation (WIC) Act, an employer must notify reportable work accidents to the Ministry of Manpower. To highlight the importance of prompt incident reporting to employers, the Ministry produced an infographic titled "Reporting Work-related accidents" listing out the various accident scenarios they must notify MOM and the consequences if they fail to report on time. Recognising that workers also need to play their part to report their work accidents to their employers, a similar-themed poster targeted at workers was also produced.

## SPREADING OUR WIC MESSAGES TO WORKERS

Workers are an important target audience for WIC messages as we refresh our collaterals to continually educate them on their rights and obligations under the Work Injury Compensation Act (WICA). Our new collaterals comprise two new posters educating injured workers on the consequences of irresponsible behaviour. For example, injured workers should not work while waiting for their work injury compensation if they do not have a valid work pass. They are available in English, Chinese, Tamil and Bengali. In addition, at our foreign worker dormitory roadshows, these workers get to receive a watch as gift token for participating in our game booth.



# National WSH Statistics Report

The WSH statistics is released by WSH Institute on a quarterly basis. This is to provide more timely updates on WSH performance to industry and policymakers. The following are the National WSH Statistics reports released in 2017.

## NATIONAL WSH STATISTICS REPORT 2016

On 14 February 2017, WSH Institute released the National WSH Statistics Report 2016 highlighting that though fatal injury rate stayed at 1.9 per 100,000 employed persons, there were more non-fatal workplace injuries in 2016.



## SHARING OF 2016 NATIONAL WSH STATISTICS AT PROBE PLUS FORUM

WSH Institute shared the 2016 National WSH Statistics on 19 April 2017 at ProBE Plus Forum 2017, highlighting the 2017 areas of concern: Falls, Struck by Moving Vehicles and Amputations.

Mr Woon Cheng Peng, Deputy Director, WSH Institute shared the WSH Statistics 2016 to about 500 participants who attended the ProBE Plus Forum.



## NATIONAL WSH STATISTICS REPORT, JANUARY - JUNE 2017

On 2 August 2017, WSH Institute released the National WSH Statistics Report for January to June 2017, highlighting fewer workplace fatalities and injuries in the first half of 2017. Vehicular-related accidents was the leading cause of fatal injuries.



## NATIONAL WSH STATISTICS IN BRIEF, 3Q 2017

On 8 November 2017, WSH Institute published the National WSH Statistics in Brief, 3Q 2017 highlighting fatal injury rate, major and minor injury rates have declined compared to previous quarters while incidence of occupational diseases remained fairly stable.



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## Develop Strong Partnership Locally

### RESEARCH COLLABORATION AGREEMENT WITH NANYANG TECHNOLOGICAL UNIVERSITY

A research collaboration agreement with Nanyang Technological University was signed on 6 January 2017 to undertake the research project to deepen understanding on industry ownership of WSH. The study aims to identify the key success factors, propose recommendations and test communication and information-based interventions to inculcate greater ownership of WSH in the industry to advance WSH performance. Led by NTU Professor Theng Yin Leng, the Interim Director of the NTU-WSH Institute Research Centre, and Director of the Centre for Healthy and Sustainable Cities at NTU's Wee Kim Wee School of Communication and Information, this is the first project following the signing of a Memorandum of Understanding (MOU) between NTU and WSH Institute, MOM on 25 August 2016.



▲ SAWS Vice Minister, Mr Sun Huashan (5th from left) leading his team, with D(MHD), DD (MHD) & Sr Specialist Lim Eng Wee at the observatory deck of OASIS @ Sakra, Jurong Island.

### SAWS VISIT TO JURONG ISLAND

MHD in conjunction with JTC hosted a visit to Jurong Island for a delegation from China's State Administration of Work Safety (SAWS) on 5 September 2017. The delegation, led by the Vice Minister of SAWS, Mr Sun Huashan, was in Singapore to participate in the XXI World Congress on Safety and Health 2017.

At the meeting held at OASIS @ Sakra at Jurong Island, MHD shared Singapore's regulatory framework for Major Hazard Installations (MHIs). SAWS officials also took the opportunity to better understand the collaboration among Singapore's various government agencies such as SCDF, NEA and JTC to manage major industrial risks and deal with major accidents that could have catastrophic consequences impacting workplaces, the environment and the public at large.

### CLOSER COLLABORATION WITH HOSPITALS – SHORTER MEDICAL REPORT (MR) PROCESS

The journey toward a shorter process to the Work Injury Compensation (WIC) medical assessment claim settlement continues into 2017 with Work Injury Compensation Department (WICD) and the hospitals working closely together toward the common goal. The frequent, regular tie-ups on information between WICD and hospitals ensured the cases are still relevant and their progress status up-to-date. While it is important for all WIC cases to be settled expeditiously, it becomes urgent when these involve foreign workers who are placed on Special Passes. Building on our collaborative working networks with hospitals and doctors, new ways were found to expedite these workers' claims.

Measures that were implemented within the year included various memo templates that the hospitals could use to signify the need for medical tests (such as Magnetic Resonance Imaging or MRI) or readiness for WIC medical assessment, rendering assistance to hospitals where medical expenses are owing from employers, surfacing cases highlighted by NGOs for immediate attention and cooperation from the hospitals, etc. We further pushed out an informational piece to enhance doctors' understanding of Special Pass and with advice on how to handle the WIC claims of such workers.

### VISIT TO MOBILE WORK AT HEIGHTS CLINIC SITE

The Mobile Work at Heights (WAH) Clinic is a programme developed by MOM in collaboration with the Singapore Institution of Safety Officers (SISO) to raise awareness and competencies in managing WAH risks for employers (senior management) and workers at workplaces.

On 10 October 2017, National Work at Heights Safety Taskforce Chairman, Mr Chow Yew Yuen together with Mr Rong Jingxiang (representing the Singapore Contractors Association Ltd, or SCAL), Er Ismadi Mohd (Director, Occupational and Health Specialist Department, MOM) and WSH Council visited a MWAH Clinic site to understand more about the programme and the ground situation.

The visit provided a platform for lively learning and exchanges, driving across important safe WAH practices and messages to all stakeholders on site. The programme was well received by the employers and workers, and the visit provided the project team and National WAH Taskforce much insights and feedback to improve and proliferate the programme further.

### LORRY CRANE RETROFIT DEMONSTRATION RUN AT JP NELSON



On 24 July 2017, the WSH Council (National Crane Safety) Taskforce, led by Chairman Mr Abdul Akbar viewed the demonstration of two retrofitted lorry cranes. The retrofitted lorry cranes were proposed by the industry's lorry cranes dealers as one of the potential solutions to address the worrying trend of lorry cranes toppling cases in recent years. Retrofitted lorry cranes would have sensors preventing the usage of lorry cranes beyond the safe working loads and this would be useful for existing older models of lorry cranes currently being used on the roads. Engineering Safety Branch also attended this session and supported it with valuable technical inputs on the proposed retrofit solution.

Representatives from the local lorry crane dealers explained in detail on the retrofitted parts and how it could limit the unsafe use of existing lorry cranes in the industry. They also demonstrated functional and load tests to ensure the workability and safety features of the retrofitted systems.

Following the demonstration, a short discussion was conducted to clarify on technical matters and discuss on the potential improvements to be made. Mr Akbar commended the industry's efforts for stepping up to propose and implement practical solutions to address the lorry crane safety concerns. Upon certification by Authorised Examiners, a pilot test of these two lorry cranes will be conducted over a period of time to collect feedback and to further enhance the proposed solution for use by the industry.

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## Develop Strong Partnership Internationally

### INTERNATIONAL CONSTRUCTION SAFETY LEADERSHIP CONFERENCE 2017, KUALA LUMPUR, MALAYSIA



Er Ismadi Mohd, Director (OSHD Specialist Department) attended the International Construction Safety Leadership Conference 2017 at Kuala Lumpur, Malaysia on 13 April 2017. The Conference was organised by the Construction Industry Development Board (CIDB) Malaysia in conjunction with the International Construction Week (ICW) 2017.

The Conference objective was to promote the implementation of Design for Safety in the Malaysian Construction Industry.

Er Ismadi was invited to speak and share Singapore's experience in its implementation of the recent Design for Safety regulatory regime which came into force in July 2016. In particular, Malaysia would like to learn from Singapore its experiences and challenges in implementing DfS from Guidelines to Regulations.

The Conference also provided a useful networking opportunity to bring together members of the construction industry and DfS experts to review and discuss best practices and areas for collaboration.

### THE 8TH NATIONAL CONFERENCE ON OCCUPATIONAL AND ENVIRONMENTAL DISEASES AND THE 1ST INTERNATIONAL CONFERENCE ON OCCUPATIONAL AND ENVIRONMENTAL DISEASES, THAILAND

Dr Gan Siok Lin, ED, WSH Institute was invited to speak at the Session entitled New Innovation and Technology in Occupational and Environment Health that was held on 1- 3 March 2017.



▲ Dr Gan Siok Lin, ED, WSH Institute (extreme left) with other delegates.

### 29TH SHEFFIELD GROUP MEETING, TOKYO, JAPAN

The Sheffield Group is a grouping of chief executives of the different occupational safety and health (OSH) research institutes in Europe, USA, Canada, Singapore, South Korea and Japan. Members meet on an annual basis to exchange information and update latest developments in OSH research and knowledge.

Mr Woon Cheng Peng, Deputy Director (WSH Institute) and Ms Azrina Abdul Azim, Head (Partnerships, Planning & Development, WSH Institute) participated in the Sheffield Group meeting hosted by the National Institute of Occupational Safety & Health, Japan (JNIOSH) on 4 - 6 June 2017. Dr Jukka Takala, Senior Consultant, WSH Institute (WSHI), also attended in his capacity as President, International Commission on Occupational Health (ICOH).



▲ Participants from 12 countries attended the meeting.

### ASEAN REGULATORY COOPERATION PROJECT WORKSHOP 2017

The ASEAN Regulatory Cooperation Project Workshop was held in Singapore on 26 and 27 October 2017 at Carlton Hotel. It was hosted by the Singapore Chemical Industry Council (SCIC) and jointly organised by American Chemistry Council (ACC), and the Japan Chemical Industry Association (JCIA) in collaboration with SCIC. The workshop focused on two key items derived from the November 2016 workshop: alignment of GHS and chemical inventory requirements in ASEAN, and included sharing on regulatory update on chemical management from all participating countries. Senior Specialist, Soo Sze Mun of the OSH Specialist Department, represented the Ministry of Manpower at the workshop and shared the updates from MOM's regulatory development on chemical management. The workshop was attended by regulators and industry representatives from 9 ASEAN member states.



## Visitor Series

### DELEGATES FROM DEPARTMENT OF OCCUPATIONAL HEALTH & SAFETY ENGINEERING, INJE UNIVERSITY, KOREA

The WSH Institute hosted delegates from the Department of Occupational Health & Safety Engineering, INJE university, Korea. The purpose of their visit was to understand and gain insights on WSH landscape and research in Singapore.



▲ Dr Gan Siok Lin, ED, WSH Institute (third from the right), Mr Woon Cheng Peng, Deputy Director, WSH Institute (Front row, first from left) with visitors from INJE University.

### SHARING OF MOM'S WSH TRAINING FRAMEWORK WITH DELEGATES FROM BANGLADESH AND NANYANG POLYTECHNIC INTERNATIONAL



▲ Mr Heng Chiang Gnee presenting OSH 50 Years Commemorative Books to Honorable State Minister, Ministry of Labour and Employment, Bangladesh.

The Honorable State Minister, Ministry of Labour and Employment and Delegates from Bangladesh and Nanyang Polytechnic International visited WSH Council on 19 May 2017. They met with Chairman, Mr Heng Chiang Gnee and learnt about MOM's WSH Training Framework from WSH Council.

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### SHARING OF SINGAPORE'S WSH ENGAGEMENT OUTREACH EFFORTS WITH SUZHOU DELEGATES

On 17 May 2017, Civil Service College (CSC) invited WSH Council to share with 25 visiting officials from the Suzhou Industrial Park (SIP) on Singapore's WSH landscape and engagement outreach efforts. This study visit was under the Ministry of Trade and Industry (MTI) Software Transfer Programme, themed "Enhancing Workplace Safety and Building a Market Supervision System." (强化安全生产监管与建设市场监管体系)

WSH Council shared our multi-prong engagement and outreach approach which targets from top management to the last worker through platforms such as CEO dialogues, forums and conferences, National WSH campaign, advertising and promotions, roadshows, publications and guidelines, just to name a few. These efforts have effectively raised the WSH awareness at both national and industry levels.

The delegates commended Singapore's WSH engagement and outreach achievements. They were particularly interested in the bizSAFE and CultureSAFE programs which helped companies build their WSH capability and competency. After the session, the delighted delegates commented that they would share Singapore's WSH outreach achievements and customise suitable similar programs for Suzhou.



▲ WSH Council shares the multi-prong engagement and outreach approaches with the delegates.



▲ A group photo of the delegates and WSH Council's representative.

### DIALOGUE BETWEEN KOREA OCCUPATIONAL SAFETY AND HEALTH AGENCY (KOSHA), SINGAPORE INSTITUTION OF SAFETY OFFICERS EXECUTIVE COMMITTEE AND WSH COUNCIL

A delegation from the Korea Occupational Safety and Health Agency (KOSHA) met up with the Executive Committee of the Singapore Institution of Safety Officers (SISO) and Mr Winston Yew, Deputy Director (Industry Capability Building) on 7 September 2017. The KOSHA delegation was led by Mr Hong Soon Eui, Deputy Director from the KOSHA Partnership Promotion Department. The intent of their visit was to learn from Singapore's experience in engaging the industry in the area of WSH capability building.

Mr Winston Yew shared on the WSH training ecosystem in Singapore, focusing on the development of WSH competencies of the workforce, including WSH Professionals. SISO introduced the SISO Professional Standard for WSH Professionals and the WSH Professionals Career Progression Pathway (CPP). The meeting ended with the KOSHA delegates expressing a keen interest in further collaboration opportunities.



### PUBLIC HEALTH LEADERS FROM THE PHILIPPINES AND CAMBODIA



▲ Delegates from Philippines and Cambodia with colleagues from WSH Council and Specialists.

WSH Council hosted 4 leaders of public health from the Philippines and Cambodia on 6 March 2017 as part of their Leadership Training Programme for health system management. These leaders came to Singapore to learn about planning, implementing and evaluating public health programmes and policies. WSH Council was invited to share with the leaders on the roles of WSH Council and the implementation journey of Total WSH. OSH Specs also shared on Workplace Health Management in Singapore.

At the session, the visitors also shared their workplace health management systems of their respective countries along with their WSH challenges. It was also interesting to note that the University of Health Sciences in Cambodia had even embarked on Total WSH at their Faculty of Pharmacy and Technical School for Medical Care since October 2016.

### STUDY VISIT BY SOUTH AFRICAN DEPARTMENT OF LABOUR

A high-level delegation, led by Ms. Aggy Moiloa, Deputy Director-General of the South African Department of Labour visited OSHD from 27-29 November 2017 for a study trip to examine how Singapore, as a global leader, implements various Occupational Safety and Health policies.

During the 3-day visit, the delegates were given insights into OSHD's recent WSH2018plus strategy, the WSH Act and key legislation, enforcement framework and strategies, Design for Safety, capability building of OSH Inspectors and Specialists, hazardous chemicals management, work injury compensation, industry engagement efforts and WSH industry training. To further complement the table top sharing sessions, the delegates were brought on a half-day visit to the BCA Academy where they were given an overview of the Construction Safety Orientation Course, including a demonstration of the work-at-heights training module before given a tour of the WSH Gallery where they enthusiastically tried their hands on training activities at the 5 stations.

The delegates shared that they had a very fruitful study visit and were presented with information on the various functions and policies of OSHD and MOM.



### MEETING WITH SOCIAL INSURANCE FUND OF THE RUSSIAN FEDERATION

On 7 September 2017, Occupational Safety and Health Division (OSHD) and Workplace Policy and Strategy Division (WPSD) had an exchange with the Social Insurance Fund of the Russian Federation. The meeting was requested by the Social Insurance Fund of the Russian Federation as part of the delegation's objectives in participating in the World Congress in Singapore. The meeting discussed the work injury compensation and rehabilitation framework in both countries. Unlike Singapore's work injury system where compensation is paid out for work accidents or occupational diseases, the Social Insurance Fund of the Russian Federation administers compulsory state social insurance system which also pays out for non-work related benefits related to maternity and childcare, in addition to work injuries. While the discussion noted the difference in both countries in the administration of the work injury system, it was a fruitful exchange of ideas. Furthermore, with Singapore's Return-to-Work programme at its infancy stage, this discussion could pave the way for future exchanges with the Social Insurance Fund, to tap on their experience in rehabilitation.



▲ From left to right: Tatiana Lototskaya, Kee Ee Wah, Elena Nikitina, Dr Sylvia Teo, Cheng Si Min, Teo Woon Chih, Agnes Lim & Geraldine Koh.

### WORK INJURY COMPENSATION DEPARTMENT (WICD) EXCHANGE WITH DEPARTMENT OF LABOUR FROM THE REPUBLIC OF SOUTH AFRICA

On 27-29 November 2017, MOM hosted foreign delegates from the Department of Labour from the Republic of South Africa. WICD was invited to present an overview of Singapore's Work Injury Compensation Act (WICA). The Department of Labour from the Republic of South Africa not only administers Work Injury Compensation, it also takes on the role as the country's National Insurer. This is unlike Singapore's work injury system that focuses on processing and determining work injury compensation. While the exchange noted the difference in both countries in the administration of the work injury systems, it was an invaluable exchange of ideas.



▲ From left to right: Elmer Khong, Kee Ee Wah, Mncedisi Edward Khambula, Tan Jin Xin, Soon Kim Yen & Darren Loh.

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### VISIT BY NATIONAL COMMISSION FOR THE CERTIFICATION OF CRANE OPERATORS (NCCCO)

On 1 November 2017, Mr Graham Brent, Chief Executive Officer from the National Commission for the Certification of Crane Operators (NCCCO) visited the Engineering Safety Branch, OSH Specialist Department.

Mr Graham shared that by providing thorough, independent assessments of knowledge and skills, NCCCO aims to enhance lifting equipment safety, reduce workplace risk, improve performance records, stimulate training, and give due recognition to the professionals who work in, with, and around cranes. He also gave further insights of their certification program on crane inspectors, lifting directors, crane operations, rigger and signalman.

During the meeting, Mr Graham was given an overview of the WSH Act and its subsidiary regulation on crane safety as well as the key work items initiated by the National Crane Safety Taskforce and OSHD.



### VISIT BY REPRESENTATIVES FROM MANITOWOC CRANES

On 24 July 2017, Engineering Safety Branch of the OSH Specialist Department, hosted visitors from Manitowoc Cranes. The visiting delegate were led by its Vice President Engineering Tower Cranes, Mr. Eric Pommier. Manitowoc Cranes is one of the world's largest providers of lifting equipment for the global construction industry.

The meeting discussed on the latest international technological and standards development for tower cranes, which includes the increasing widespread adoption of Crane Control System (CCS) for Tower Crane which provides real time data access and alerts on the tower crane operation. The data collected can also be analysed to improve on the safety and operation of the tower cranes. Further, the visitors also shared on the recent development on the use of remote control system for tower cranes. The insightful discussion was part of the OSH Specialist Department Visiting Expert engagement series to keep abreast of latest industry development in the area of lifting equipment.



### BANGLADESH DEPARTMENT OF INSPECTION FOR FACTORIES AND ESTABLISHMENTS (DIFE) VISITS WSH COUNCIL

On 27 September 2017, WSH Council hosted a study visit for six officials from the Bangladesh Department of Inspection for Factories and Establishments (DIFE). This was a follow up from the Bangladeshi State Minister's courtesy call to Commissioner for WSH and Chairman WSH Council in May 2017. The objective was to learn more about the WSH training ecosystem and practices in Singapore. The study visit was led by Mr Farid Ahmad, Deputy Inspector General (Gazipur) and Mr Mohammed Zakir Hossain, Deputy Inspector General (Dhaka). Mr Winston Yew, Deputy Director of Industry Capability Building, candidly shared on the system, structure and processes that were essential for the establishment of an effective national WSH Training Centre such as curricula development, trainer management and assessment protocol. He also emphasized on sound business governance and efficient training administration for a sustainable WSH Training Centre. The information shared was immensely appreciated by the delegates who expressed keen interest to continue to consult and learn from our Singapore experience. The visit was coordinated by Mr Low Wong Fook and Ms Judy Emily from the Nanyang Polytechnic International and facilitated by Mr Raymond Wong.



### 51ST SINGAPORE-MALAYSIA CONGRESS OF MEDICINE & 12TH SINGAPORE PUBLIC HEALTH & OCCUPATIONAL MEDICINE CONFERENCE

Dr Gabriel Chia from the Occupational Medicine Branch, OSH Specialist Department, attended the 51st Singapore-Malaysia Congress of Medicine (SMCM) and 12th Public Health & Occupational Medicine (PHOM) conference held at the Grand Copthorne Waterfront Hotel, Singapore from 21st to 23rd July 2017. The 51st SMCM is a biennial meeting which brought together academicians, specialists and medical professionals from Singapore, Malaysia and around the region to address major healthcare issues and trends, debate on emerging challenges, share clinical experiences and establish vibrant network for research collaboration. The 12th PHOM conference is an annual event bringing together public health and occupational medicine professionals from various local and regional healthcare agencies/institutions as well as government organisations to address current and future public health challenges and formulate effective strategies. Dr Gabriel Chia presented his research paper on adult rotavirus outbreak during the conference.



### VISIT BY THE LIFTING EQUIPMENT ENGINEERS ASSOCIATION (LEEA)

On 14 July 2017, the Engineering Safety Branch of the OSH Specialist Department, hosted a meeting with representatives from the Lifting Equipment Engineers Association (LEEA). LEEA is the leading body for the lifting industry globally and has contributed substantially to the development of international standards and codes on lifting equipment through its membership of British, European and International bodies. The association also provides comprehensive training on the testing and examination of lifting equipment.

LEEA shared on their latest works which include a newly published handbook for lifting equipment examiners, as well as a mobile app which can assist lifting equipment examiners in carrying out their testing and examination thoroughly. The meeting also explored collaborative opportunities including raising the capability of MOM's officers and industry stakeholders in carrying out the testing and examination of lifting equipment.



### VISIT BY PARTICIPANTS OF THE DERMATOLOGY NURSING COURSE (ADVANCED)

Nurses from the Dermatology Nursing Course (advanced) organised by the National Skin Centre, Singapore, visited the OSH Specialist Department on 30 August 2017 to understand about the safety and health workplace practices. Dr Kenneth Choy and Dr Lucy Leong gave an overview of the role of the Occupational Safety and Health Division, medical surveillance and incident reporting, and of occupational skin diseases and its prevention. The participants found the visit insightful as it provided them with a good perspective of possible occupational health hazards in the workplace and were glad to know that there were guidelines and regulations in place to ensure the safety and health of our workers.





# 2017 WORK OVERVIEW

## CUSTOMISED TECHNICAL TRAINING ON PRESSURE VESSEL SAFETY TO ILO AND OSH INSPECTORS IN CAMBODIA

As part of the Cambodia's national efforts to raise the capability in managing the safety of pressure vessels in the country, OSH Specialist Engineers Christopher Toh and Er. Charles Tan were invited by Cambodia's Ministry of Labour and Vocational Training (MOLVT), to conduct a 3-day customised technical training on Pressure Vessel Safety from 11 to 13 December 2017. The training was a high signature event in Cambodia and was opened by the Minister of Labour and Vocational Training, H.E. Dr Ith Samheng and was covered by major news networks in Cambodia.

Held in Phnom Penh and attended by more than 50 Cambodia's OSH inspectors as well as representatives from the International Labour Organization (ILO), the training covered key topics including introduction to Singapore's statutory equipment regulatory framework, design and working principles of pressure vessels, inspection techniques and methodology, as well as common causes of pressure vessel failure. The training also included a site visit to a factory for a practical session on boiler inspection.

This event was a useful and fruitful experience for the participants, who had not only learnt the basic principles of pressure vessel, but also acquired information which can help Cambodia to further strengthen their pressure vessel safety regime. Our very own OSH Specialist Engineers also came back enriched with new knowledge and experience about the different cultures, practices and inspection regimes in Cambodia. When asked about his personal take on the trip, Christopher quipped "We felt that the trip was very fulfilling knowing that we had made a difference, no matter how small, to the pressure vessel safety regime for our dear Cambodia friends and who knows, potentially saving many precious lives in future".

## VISIT BY REPRESENTATIVES FROM ABS GROUP

On 6 June 2017, OSH Specialist Department and Major Hazards Department (MHD) jointly hosted visitors from ABS Group. The visiting delegate were led by its global CEO Mr Todd Grove. ABSG was currently one of the approved Third Party Inspection Agency (TPIA) for pressure vessels.

The meeting shared on Singapore and international's practices on evaluating Safety Case and pressure vessel inspection, and explore opportunities to collaborate to raise the capability industry stakeholders in evaluating Safety Case submissions, and to provide expertise in incident investigations relating to pressure vessel.



## EXPLORING AREAS OF COLLABORATION WITH UNIVERSITY OF NORTH SUMATRA (MEDAN)

Senior Consultant, Dr Ho Sweet Far, visited the University of North Sumatra (Medan) as part of the team under the Singhealth International Collaboration Office to look into the training and medical exchange for doctors under the Preventive Medicine Residency Programme and in areas for collaboration in Preventive Medicine for example training and project developments in prevention of work-related diseases and chronic disease management.



## VISIT BY SOUTH KOREA'S NATIONAL AGENCY FOR ADMINISTRATIVE CITY CONSTRUCTION

On 5 Dec 2017, a delegation from the South Korea's National Agency for Administrative City Construction (NAACC), Project Coordination Division, visited OSHD to learn about Singapore's WSH framework, enforcement policies and processes for the construction industry. During the morning's visit-cum-meeting, OSHD shared with the visitors our 12-years' WSH Transformation Journey – starting with the launch of the new WSH Framework in 2005, gazetting of the performance-based WSH Act to replace the old Factories Act in 2006, enhanced Enforcement strategies, and lately, the implementation of the Design for Safety framework and Vision Zero Initiatives. The delegates, led by their Deputy Director Mr Kang Byung Gu, were particularly interested in WSHC's BizSAFE programme and the use of the SnapSAFE app to keep the workplace safer and healthier. The Design for Safety framework was also one of the topics discussed vigorously, with many questions raised on its implementation and enforcement strategy.

Besides the sharing by our OSHD's colleagues, the Deputy Director Mr Kang Byung Gu shared on the Administrative City Sejong Project, one of the biggest

urban development projects currently undertaken by the South Korea Government. The Sejong Project aims to relocate a total of 40 government bodies, 15 national research institutes and 18,600 employees from the congested capital Seoul to Sejong, a self-sufficient & multifunctional city. It is also planned to have the population of the Administrative City Sejong to hit 500,000 by 2030, and aims to be the hub of the nation and core of the Seoul's metropolis. With a total of 131 major construction projects going on in the Administrative City now, the Korea's NAACC sought to learn from Singapore and apply the learnings to better manage OSH in these projects and reduce accidents and injuries.

At the closing of the meeting, NAACC's Deputy Director Kang Byung Gu and DOSHI both agreed that there is potential for NAACC and OSHD to work together on WSH-related topics for the construction industry and continue to exchange and share learnings from each other.

In closing, Mr. Chan Yew Kwong, Director (OSH Inspectorate) thanked the delegates for the sharing of ideas on administration and improvements to safety and health, and welcomed further partnerships and discussions with the NAACC.





# FORECAST

# FORECAST

## SHIFT FROM COMPENSATION TO PREVENTION

The journey to revamp the Work Injury Compensation (WIC) system, from one focusing on compensation to one that place emphasis on prevention by prioritising injury management and upstream workplace accident and ill health prevention, has begun. This will eventually lead to healthier and safer workplaces for all workers.



## FOCUS ON REHABILITATION TO MITIGATE THE IMPACT ON INJURY ON HEALTH AND WELL-BEING

On 2 November 2017, the Return-to-Work (RTW) program was launched to help injured workers recover and return to work faster. Employers will also benefit as they can retain their experienced workers. MOM has partnered seven public hospitals to roll out the RTW programme progressively over the next 12 months and Tan Tock Seng Hospital was the first to offer the RTW services starting from 25 September 2017. By the end of 2018, all 7 public hospitals will have RTW clinical services ready.



▲ Mr Sam Tan, Minister of State, Prime Minister's Office, Ministry of Manpower & Ministry of Foreign Affairs, opening speech at the launch of Return to Work (RTW) Programme.

## REDUCING THE INCIDENCE OF NOISE-INDUCED DEAFNESS (NID)

Noise Induced Deafness (NID) is the leading occupational disease in Singapore and a national NID prevention programme was developed to reduce the incidence of NID. This included key initiatives such as standards development, compliance assistance, deepening capabilities of competent persons to monitor and control noise, and targeted enforcement.

To further enhance and ensure effectiveness of the programme, there will be greater outreach efforts to target noisy workplaces to replace them under medical and hygiene surveillance. Such workplaces will also be required to reduce noise levels by implementing upstream noise control measures, such as elimination/substitution of process/equipment, or installation of engineering controls. Compliance assistance materials will also be developed for employers and employees (e.g. training video, noise control leaflet).

## WORKING WITH TRIPARTITE PARTNERS TO COVER ALL EMPLOYEES (E.G. INCLUDE SELF-EMPLOYED PERSONS)

MOM will also be looking into the issue concerning accident insurance for self-employed persons (SEPs). A Tripartite Workgroup has been formed to study closely into the wide variety of contracting arrangements and come up with measures to ensure that SEPs are adequately covered with insurance.



▲ Representatives from seven RTW participating hospitals with Certificates of Partnership from Mr Sam Tan.

### Selection of Hearing Protectors



#### Ear Muffs

Ear muffs consist of a pair of cushioned cups that form a seal around the ears. The muffs are designed to cover the entire ear, preventing the entry of noise.



#### Earplugs

Non-disposable or reusable earplugs are made of silicone, rubber or plastic, and they come in various shapes and sizes as the size of the ear canal varies from person to person.



#### Disposable Earplugs

Disposable earplugs are made of polyurethane foam or glass wool and they are thrown away after a few uses.



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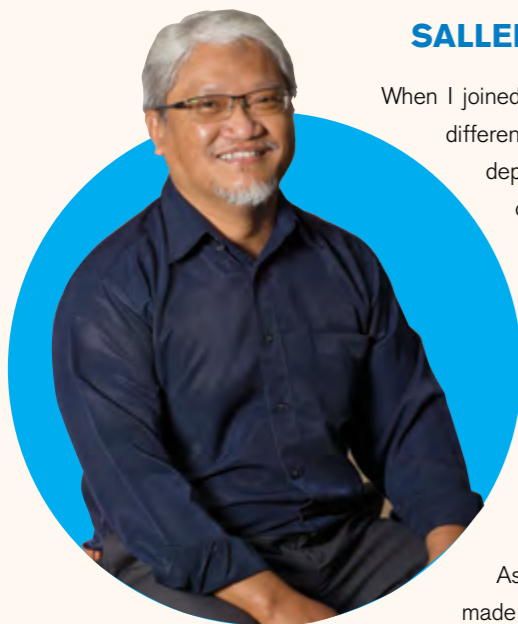
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# OSH FAMILY

## EXCLUSIVE INTERVIEWS

*Making a Difference***SALLEH WARREN** | Principal WSH Inspector - Operations (GW) (OSHI)

When I joined MOM as a Factory Inspector, Safety and Health were 2 separate departments with different focuses and management. The Millennium year 2000 saw the merging of both departments, forming the Occupational Safety & Health Division. That was the beginning of change for the Division and it continues to adapt and evolve ever since.

Inspectors now need to oversee both safety and health. This required me to upgrade myself in terms of knowledge and competency. Reports changed from being written on paper and attaining the approval through file movement to using technologies such as computers and iPad. In this new digital era, this is a challenge that cannot be avoided. Our legislation changed covering more workplaces and increased ownership to stakeholders rather than prescriptive law. WSH promotional and awareness approaches and activities had diversified tremendously which was experienced by both the industries and public.

As a WSH inspector, I am overwhelmed having witnessed and being involved in the changes made me proud of what we are doing. We have progressed significantly and impacted the industries and public with the achievement we have today.

*Going from Strength to Strength***JAIME LIM** | Deputy Director, Major Hazards Department (MHD)

After graduating from the National University of Singapore with a Bachelor's degree in Environmental Engineering, I joined the then Occupational Health Department as an Industrial Hygiene Engineer. Prior to the introduction of the Workplace Safety and Health Act (WSH Act) in 2006, the Occupational Safety and Health Division (OSHD) was re-organised and I was assigned to the Risk Management Branch, implementing the conduct of mandatory risk assessments in workplaces.

As WSH risk management propagated across workplaces, OSHD responded pro-actively by focusing on improving WSH at the systemic level. Emphasis shifted towards taking occupational safety and health management systems to greater heights and introducing leading indicators for safety, such as, number of excursions beyond set operating parameters, percentage of mechanical integrity inspections conducted versus planned etc. With the shift, the Risk Management Branch transformed into the System Safety Branch, monitoring early symptomatic detections of WSH management in major hazard workplaces, so that strategic interventions and engagements could be effected at the systemic level to prevent any catastrophic incident.

With the increase of notable process safety incidents around the world, OSHD implemented the Safety Case regime for Major Hazard Installations (MHIs), to continue protecting Singapore's status as a global hub for oil and petrochemical processing. Currently, as the Deputy Director of the Major Hazards Department (MHD), I oversee MHD and work closely with other regulators NEA and SCDF, to effect a single regulatory front for all Safety Case matters. As it is crucial that MHD works closely with the MHI industry, Safety Case practitioners and trade associations, I also develop and implement MHD's programmes and activities in Safety Case assessments, investigations of process-related incidents, and best practices in Safety Case implementation. Together with my MHD colleagues, we strive to prevent major accidents in the MHI industry and protect the safety and health of the workforce and the community.

*Showing Up Matters***TAN WEE JIN** | Senior Manager, Knowledge Hub (WSHI)

What strikes me the most during my time in the division is the dedication shown by OSHDians in their work. While the job roles differ, everyone is committed to making Singapore workplaces safer and healthier. The teamwork shown among colleagues is also exemplary and this has enabled us to overcome the many challenges at work.

Working in a research capacity, I believe that knowledge should be disseminated in a timely and impactful manner. This cannot be achieved alone, but a concerted effort by relevant parties can make this happen and improve the health and safety of our workers.

*Redefining Work Enjoying Life***DAMIEN LIM** | Senior Manager, Claims Management (WICD)

Oh, how time flies when you are having fun! That was the first thought that came to my mind when I was told to do a write-up for our annual report to share my work area and experience as part of the OSH family.

Working in the same organisation for the past 10 years speaks volumes for the passion I have as a claims management officer in WICD. And speaking of volumes, yes, the workload is heavy indeed.

One has a tendency to be mired in the daily hustle and bustle of managing disputes, appeals and meeting deadlines. Nevertheless, I take comfort in the fact that my work has a very direct impact on the injured workers' receiving their compensation, even more so for fatal cases. I feel that I have rendered help and that makes my work meaningful.

In addition to my core duties, I have been given various opportunities to develop my competencies, for e.g. the most recent being the chairperson for our department planning exercise committee. I was also involved in the management of NGOs and as this function puts me in contact across various divisions and management levels, I gained deeper insights and a broader perspective beyond my usual job scope.

And how can I not mention my dear colleagues. Over the years, we have developed a strong working relationship with each other. I know I can always count on their support when needed. You know who you are. Thank you!



## EXCLUSIVE INTERVIEWS



## Committed to Safety and Lives

**DIANA SNG** | Senior Inspecting Officer, In-General Workplaces 1 (OSHI)

Newbie in OSHD! First 'arrow' I received was to perform during OSHD Annual Lunch and that was where I became friends with all the newbies. This is the first time my job comes with 'CCAs'. I was part of the WSHC welco team, OSHD welco team and Active Lifestyle Club. That was where I made many new friends. The colleagues are really awesome! Not only are they fun-loving and cheery, they are always willing to provide advices and guidance.

My first 16 months with WSHC's Enterprise Capability Building Branch was to manage WSH Culture funds and (required me to be on my butt almost the entire working day) was more desk-bound. Thereafter, I joined the Investigations team in OSHI and it was a drastic change. Life is more unpredictable and so are the cases. Work is more dynamic and can be rather challenging too. Fortunately, we have a close-knit team which makes work happier and satisfying.

## Flumpled by What He Does

**CHRISTOPHER TOH** | Senior Principal Specialist, Engineering Safety (SPECS)

It had been a tumultuous journey for me at OSHD. I had the honour of serving under the leadership of two OSHD Directors, and it soon looks likely to be a third for me. I had served in the Inspectorate department, Investigations Branch, and am currently under Specialist department building up my expertise in OSH and engineering.

I am oft astounded by the plethora of challenges and trails we face daily in OSHD's work. I had the opportunity to witness at first-hand, mutilated corpses, burnt victims, enter into precarious situations such as to climb upon a toppled oil rig which had been listed at 17 degrees angle, up tower cranes with heights over 100m, sheltering through a thunderstorm inside a tower crane, down deep into the bowels of a double bottom oil tanker (did I mention I have acrophobia and claustrophobia?), incinerators for rubbish, burnt down fire scenes, etc. etc, you name it.

Yet more often than not, being part of a dynamic and cohesive team meant we were able to rise above the occasion and achieve a greater good for the overall public. I am thankful for the synergy and teamwork in my division, and similarly humbled by what we do in OSHD: To save lives.

People would ask: Why did you stay so long in your job when you can easily move?

My answer would be: I am doing good for the people here.

There was this crane accident which my team and I responded years ago. On the second day, just before we entered the worksite, we could hear the sounding of bells. When we entered the gate, I saw this Taoist priest who was ringing a bell, throwing paper money into the air. Beside him was this diminutive lady racking with sobs, holding on to a girl around 2 years of age. The mother was crying aloud in Chinese "Come back, come back to us!". It was the wife of the crane operator whom had died when the crane had toppled into the basement. His body was retrieved by SCDF the day before, crushed and mangled. She had come in from Malaysia late last night and was there to perform a Chinese ritual to recall back her husband's soul so that he could rest in peace. That particular scene was etched in my memory. That was not the only encounter I had in my job to this day.

Which other division can have a deeper impact and more direct causal link to save human lives? Ok, that's kinda rhetoric.



## Empowered to Lead Fulfilling Lives

**LINDER JOSEPH SIMON** | Executive, Compliance & Resource Management (PICS)

It is a welcomed change to come into the world of Occupational Safety and Health, having spent 10 years in the educational system. I am glad to have had the chance to crossover and contribute to the national effort in promoting safety and health for our workers.

My first year stint in Welco introduced me to the wonderful and caring OSHD family, and there are many fond memories and forged bonds of friendships that is still going strong even as I enter into my fifth year in OSHD. Carrying over my expertise in procurement from MOE, I am able to take on the new challenge of conducting internal audit, and I am proud to contribute to the greater cause of OSH with my forte and also my new found capabilities.

In the end, it is the many colleagues I work with that really makes my day and gives me great satisfaction working in OSH!



## Privileged to be Pioneers

**AGNES LIM** | Principal Manager (Safe Schools), Manpower Capability Building Workplace Safety and Health Council (WSHC)

I have been in MOM for the longest time and half of the time I am in OSHD!

Since I joined OSHD, I feel deeply privileged to be pioneers of important MOM programmes which allow me to make a difference in my work and in the lives of people, and to allow others to make a difference in me. The few programmes that are particularly memorable are starting up a mandatory orientation course for Construction and Marine industry for work permit holders, Safe Schools, and Return to Work!

During this journey, I am grateful to meet a couple of kind souls, who have imparted me invaluable knowledge and experiences and make my path in OSHD smoother. I take this opportunity to thank Fang Qun especially who has patiently guided me in his own capacity when I first stepped in to the OSHD family.

Many started off as strangers and some become good friends. They lift me up in kind words and action of comfort and cheer when times are challenging. For that I am deeply thankful. Sara, who sees my all in this journey has written some lines for me (Thank you Sara, you have been awesome!)

"Agnes and I travelled a long journey together and since the day I started to work with her, I have learnt a lot which really helps me to become a better person inside and out. She works hard and set a great example and impart her skills and knowledge with us freely. I am grateful for the opportunities she has given me and the priceless experiences I have gained from her over the years. She is my mentor, teacher and friend!"

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OSHD had embraced Corporate Social Responsibility (CSR) in a bid to go beyond our mandate in promoting a safe and healthy workplace for everyone. OSHDians are always keen to contribute back to the society in a more personal and meaningful way. Hence our staff have increasingly been involved in volunteering activities through the years. Many of these CSR activities were done on a divisional and branch level, mostly through voluntary work for disabled persons such as the Purple Parade Movement and Lions Befrienders for the elderly.



**PURPLE PARADE MOVEMENT**

**LIONS BEFRIENDERS FOR THE ELDERLY**

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OSHI



Professionalism



Passion For Progress



WICD



Unity in Diversity



MHD



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**SPECS**



**PICS**



*Osh Connect*



*Teamwork*



**WSHC**



## ACKNOWLEDGEMENTS

### to Annual Report 2017 Collaborators

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Absent with apologies: Mohammad Azim

“We all find ourselves in situations that at times seem hopeless. And, we all have the choice to do nothing or take action. Your actions could save lives, so don't be a bystander when it comes to workplace safety and health.”



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