

TOTAL WORKPLACE SAFETY AND HEALTH

Sembcorp Marine's Vision Zero incidence goal is an important foundation of the Group's work ethos. Executed via a robust framework and system, the Group's workplace safety and health (WSH) approach encompasses all staff, contractors, customers, suppliers and all stakeholders operating within its facilities.

A ROBUST, AUDITED WSH FRAMEWORK

Sembcorp Marine adopts a risk management perspective that, when combined with stakeholder consultation, enables the Group to continuously enhance its robust WSH framework.

In addition to a comprehensive framework and management system, the Sembcorp Marine Code of Business Conduct, Supplier Code of Conduct and yard-level health, safety and environment (HSE) procedures set out the Group's standards for all employees, personnel serving in subsidiaries and joint venture entities, as well as third party representatives of the Group.

Sembcorp Marine's WSH framework comprises policies and standards which are benchmarked to global and national best practices. All yards

follow audit methodologies of the OHSAS 18001 Occupational Health and Safety standard, and of the Group's Internal Audit Annual Plan. The framework aligns with standards set by the International Association of Oil and Gas Producers (IOGP), the International Labour Organization and the national legislative standards of the respective countries of operation, such as the Singapore Workplace Safety and Health Act.

HSE audits are regularly carried out across all Sembcorp Marine yard facilities. Conducted by accredited auditors and qualified staff, these audits relate to certification, management systems standards required by global customers and their partners, as well as annual internal checks of operations. Risk management teams also monitor and evaluate health, safety and environment performance.



**HEALTH,
SAFETY AND
ENVIRONMENT**
FORM A CORE VALUE OF
SEMBCORP MARINE

Commitment to Health, Safety, Security and Environment (HSSE) Excellence Starts From The Top

President & CEO Mr Wong Weng Sun's personal pledge to:

Uphold the highest commitment for workplace HSSE for the Group's stakeholders

Cultivate a strong HSSE culture across the yards through HSSE leadership commitment

Empower all personnel in the company to exercise Stop-Work Authority

Promote and emphasise effective and open HSSE communication with all stakeholders

Embrace the responsibility to set key goals and performances, and provide support for achieving a zero harm target

Demonstrate exemplary HSSE leadership, and walk the ground



Regular discussions among employees, management, contractors, customers and stakeholders encourage cross-pollination of ideas and benchmarking against global WSH best practices

The WSH framework is championed by Sembcorp Marine's Board, Management, employees, contractors and other stakeholders. While the Board Risk and Enterprise Risk Committees steer the HSSE policies, framework, procedures and control processes, the Group HSE Committee, together with various sub-committees at the yards, is responsible for forward development and deployment of strategies and workplans. In 2018, the yard-level HSSE committees comprised over 700 management and worker representatives. They collectively represent 100% of the more than 27,300 Sembcorp Marine employees and contractors and are responsible for involving the workforce in various HSSE programmes.

Yard-level committees regularly engage the workforce to enhance supervisory capabilities; conduct joint inspections; identify hot spots and implement training to ensure all personnel are equipped with the necessary skills and knowledge to comply with the Group's HSSE regulations and standards. Forums and discussion events are frequently organised for employees, contractor partners and customer representatives to share feedback, raise



issues, tap cross-functional expertise, and collectively brainstorm with the Group's safety personnel to improve the overall HSSE management system.

WSH PERFORMANCE

Sembcorp Marine safety performance evaluation encompasses the Group's employees and contractors. The Group's Accident Frequency Rate (AFR), Accident Severity Rate (ASR) and Workplace Injury Rate (WIR) rose in 2018 as compared to 2017. Contractors accounted for 27% of injuries.

To the Group's regret, 2018 saw a fatal incident that occurred while a contractor was working on an electrical junction box on the main deck of a vessel. Safety procedures for similar and related work scopes have been reviewed and improved to increase ground compliance and prevent any recurrence.

Sembcorp Marine believes safety is an ongoing journey and it is important to not be complacent. The Group continues to review areas for improvement and step up efforts to inculcate a strong safety ownership culture.

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Sembcorp Marine's (SCM) Safety Performance

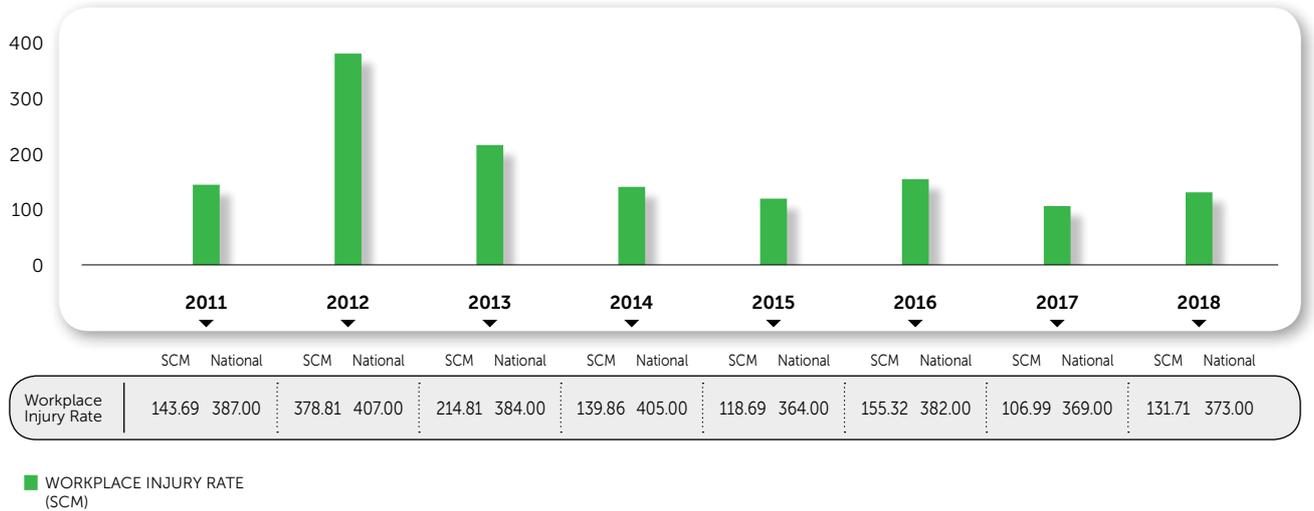
Accident Frequency Rate
Incidents Per Million Man-hours

Accident Severity Rate
Man-days Lost Per Million Man-hours



Workplace Injury Rate

Workplace Injury Rate
Injuries Per 100,000 Persons



Notes for the above charts:

- The data represent Sembcorp Marine's employee and contractor statistics related to its Singapore yards within operational control (see page 78)
- Definition of terms and calculation methodologies are set out by the Singapore Ministry of Manpower's reporting protocols, available in the latest national statistics report at www.mom.gov.sg
- Sembcorp Marine adopted Workplace Injury Rate as a performance metric for the performance year of 2011 onwards
- 2009 – 2018 national statistics are referenced from the Singapore Ministry of Manpower's Workplace Safety and Health Reports available at www.mom.gov.sg



Reinforcing communication of the Group's zero-incidence goal

MULTI-STAKEHOLDER PROGRAMMES

Comprehensive Hazard Prevention and Mitigation

A comprehensive Hazard Identification, Risk Identification and Determining Controls Policy guides the Group's system of hazard identification, risk categorisation, risk assessment matrix, action and controls.

Supplementing this is the annual Review, Educate and Validate (REV) programme used by the yards and their contractor partners to address evolving key risks. An annual review of the Group's incident and near-miss records as well as the industry's performance within a year identifies the most common occurrences. Mapped against a weighted matrix, the top four topics will subsequently be identified as the yards' primary focus for the next work year. Work

methodologies and practices are constantly reviewed according to quarterly REV topics to ensure continued system effectiveness and coverage. Safety programmes, joint inspections, educational exercises and cross-functional briefings on REV topics are developed and rolled out for employees and stakeholders. In 2018, the yards implemented a range of initiatives for employees, contractors and customers which focused on slips and trips, risks of moving objects, risks of falling objects, and falls from height. The 2019 REV topics will see the yards placing more emphasis on electrical safety, crane and lifting operations, structure stability and confined space work.

Dynamic Communication and Feedback Platforms

Semcorp Marine management meets contractor representatives regularly over the year in an effort to build a cohesive culture based on the Group's

beliefs; reward and reinforce best practice behaviours; as well as engage stakeholders in dynamic conversations to identify emerging HSE issues.

Discussion platforms to align all internal and external working parties are organised regularly to ensure alignment with safety standards and practices across projects. These consultative platforms involve the Group, customers, vendors, contractors and other stakeholders. Examples of such platforms in 2018 included joint site and project inspections with various stakeholders; the MISC Contractors HSSE Forum; Equinor's HSE Supplier Gathering; Shell Safety Deepwater Conference; the Vito HOST Fabrication Leadership HSSE Engagement Workshop with Shell; the Contractor HSE Town Hall Meeting; Kaombo Project Monthly Sub-contractor Bosses Meeting and Safety Day in the yards.

TOTAL WORKPLACE SAFETY AND HEALTH

Sembcorp Marine's WSH Communities Discussion Forum was initiated in 2014 as a platform to learn and share WSH policy, strategies and management of frontline issues with corporate leaders from various industries. In 2018, the yard hosted visits from the Singapore Maritime Foundation, the Ministry of Education North 7 School Cluster, and Sembcorp Industries. The Group also showcased its in-house Total WSH model to a learning team from the national WSH Council.

Enhancements to WSH Programmes

In 2018, Sembcorp Marine intensified its stakeholder engagement to improve and reinforce WSH standards in the workplace. Campaigns centred on Sembcorp Marine's core WSH messages were rolled out to all parties and stakeholders of the Group. Several programmes were enhanced as a result of ongoing reviews of Sembcorp Marine's HSE framework and systems. These included:

- **Night Safety Coordination Committees**

The use of night committees was expanded into more yards under the Group to ensure that all work shifts comply with the HSE management system. Stricter controls were implemented for all-night work, with the cooperation of Project Managers and Production Engineers.

- **CARE Programme**

The CARE programme, which won the Seatrade Maritime Asia Safety Initiative Award, was rolled out for Group-wide adoption in 2018. In addition to serving as a platform for no-reprisal reporting and recording of all HSSE issues, the programme integrates structured training and outreach activities for all levels of staff and stakeholders.



Visitors learning more about Sembcorp Marine's holistic safety, health and welfare policies and practices at the Tuas Boulevard Yard's onsite medical centre, central kitchen, steel fabrication facility and the dormitory's multi-media room

- **Stop-Work Authority (SWA)**

Existing SWA programmes were streamlined and rolled out to employees, contractors, customers, and other stakeholders. The new system retained its no-reprisal policy and was updated according to global standards with a uniform reporting format and an educational programme. More information can be found on www.sembmarine.com/sustainability/safety.

- **Contractor Partner Performance Award**

This quarterly programme to recognise and reward good WSH performance by contractor partners was enhanced to reach all 126 partners across the Group.



Please refer to pages 26 - 28 for more details of Sembcorp Marine's WSH awards in 2018.

- **Sembcorp Marine Life Saving Rules**

Eight easy-to-remember rules for employees and contractors were developed from Sembcorp Marine's and IOGP's research into historical accident and incident reports.



“Safety Starts With Me” is a campaign launched in 2018 to reaffirm and align the importance of personal HSSE ownership across the Group’s staff and stakeholders. About 28,800 employees, contractor partners, customers and stakeholders attended briefings that highlighted every person’s right to stop and report any unsafe working conditions and activities without reprisal. Identified by a badge worn above the left pocket closest to the heart, this programme forms a part of Sembcorp Marine’s proactive approach towards building a strong HSSE culture.

This Safety Starts With Me message has been further integrated into the Group’s mandatory HSSE induction briefings which all personnel entering Sembcorp Marine yards must undergo.



EMERGENCY PREPAREDNESS

The yards conducted over 130 emergency response exercises in 2018. These included drills for scenarios such as pollution control, firefighting, evacuation, height rescue, radiation source recovery, man overboard as well as joint exercises conducted with the Singapore Civil Defence Force and Singapore Police Force. All employees, contractors and customers were required to take part in the drills.

OCCUPATIONAL HEALTH

Sembcorp Marine adopts a multi-faceted strategy to drive home the importance of safety measures and prevention of occupational hazards. The gravity of managing WSH risks is emphasised throughout the Group.



Regular drills ensure the workforce is ready to respond to emergencies in different scenarios

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Medical facilities and services are available to all employees and stakeholders in the yards

Access to Health Services and Support

Employees and all onsite stakeholders have access to the Group's medical facilities, designated workplace doctors, onsite paramedics and medical teams at all times. The Group runs a wide range of occupational health monitoring programmes for employees and contractor partners such as the Hearing Conversation Programme, Respiratory Protection Programme and Heat Stress Management Programme.

Employees and contractors are equipped with the requisite knowledge and skills to render first-response medical assistance. Occupational first-aid training, including the use of automated external defibrillators (AED) and cardiopulmonary resuscitation (CPR), is held regularly.

The Group also organises talks and provides support for employees to address common health issues such as mental health, chronic illnesses and disease prevention.

Health Checks

Employees and contractors must undergo annual health assessments tailored to their work scope and be certified fit before working at Sembcorp Marine facilities. Samples of this workforce are manually monitored by Sembcorp Marine's healthcare services.

An array of health assessments and tests such as electrocardiogram, radiographic scans, haemoglobin count, audiometric and vision tests and more are deployed to ensure the well-being of all working personnel.



More information on the Group's health and wellness programmes can be found on page 149.

Regular monitoring and inspection of occupational health hazards and control measures are also instituted across the Group. The Group adopts pandemic disease prevention initiatives, including emergency response plans for all facilities, as well as fumigations and personnel training for identifying and eliminating dengue, malaria, yellow fever and other vector-borne hazards.

Through diligent health monitoring, infection control and industrial hygiene measures, Sembcorp Marine is able to mitigate health risks among its employees, stakeholders and community.

