

a national strategy for workplace safety and health in singapore

WSH

IMPLEMENTING WSH 2018 FOR MARINE SECTOR IN SINGAPORE

TOWARDS A PROGRESSIVE AND
PERVASIVE SAFETY AND HEALTH CULTURE

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STATEMENT OF COMMITMENT

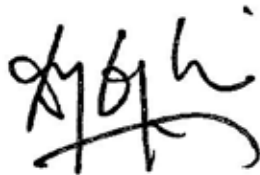
We, the Workplace Safety and Health Council (Marine Industries) Committee, are committed to driving the implementation of the Workplace Safety and Health 2018 Strategy for the marine sector and achieving the targets set for this sector. The Committee is steadfast in the pursuit of continuous improvement of workplace safety and health standards in the marine sector.

This Plan provides a concrete and comprehensive plan to guide our collective efforts in developing a progressive and pervasive safety and health culture to produce a quantum leap in the workplace safety and health performance of the marine sector by 2018.

We are committed to garnering greater cooperation within the sector and aligning ourselves to the objectives and tasks outlined in this Plan. We will review the progress of our plan regularly against the targets and enhance it to meet the dynamics of the marine sector. Together, we will bring the safety standards of the marine sector in Singapore to be amongst the best in the world.



Professor Poo Aun Neow
Chairman
WSH Council
(Marine Industries) Committee



Mr Wong Weng Sun
Deputy Chairman
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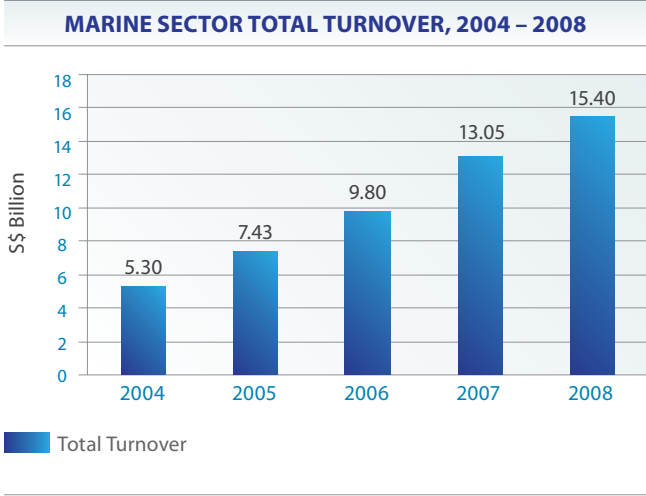
THE SINGAPORE MARINE SECTOR LANDSCAPE



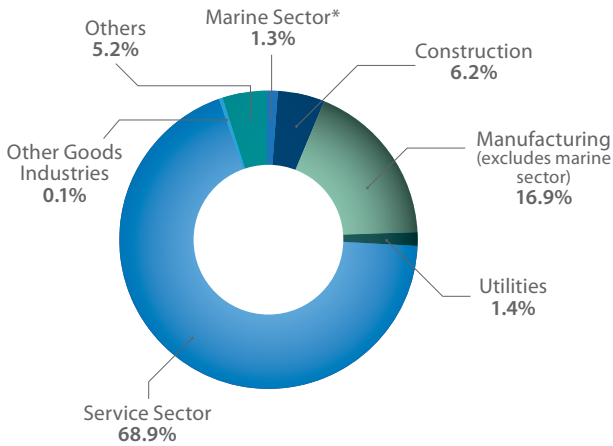
THE SINGAPORE MARINE SECTOR LANDSCAPE

a. Economic Performance of the Marine Sector

The marine sector comprises companies involved in diverse activities such as shipbuilding, ship repair, rig building, offshore engineering, marine surveying services (other than classification societies), salvaging of distressed vessels and cargo, as well as work done at anchorages. The sector has experienced strong and steady growth in recent years. In 2008, the sector contributed an estimated 1.3% of Singapore’s Gross Domestic Product (GDP), up from 0.74% in 2005¹.



GROSS DOMESTIC PRODUCT CONTRIBUTION BY SECTOR, 2009



*Data for Marine sector’s gross domestic production contribution for 2009 was unavailable at publication time, the figure for 2008 is used instead.

In line with the growth in business activity, the marine sector has seen a corresponding rise in employment. In 2009, the sector employed some 116,900 workers³, approximately 4.8% of the overall workforce, up from about 82,600 in 2005. The marine sector continues to employ a significant number of foreign workers at production level.

Over the past four years, the estimated total turnover of the marine sector has more than doubled, from about \$5.3 billion in 2004 to about \$15.4 billion in 2008².

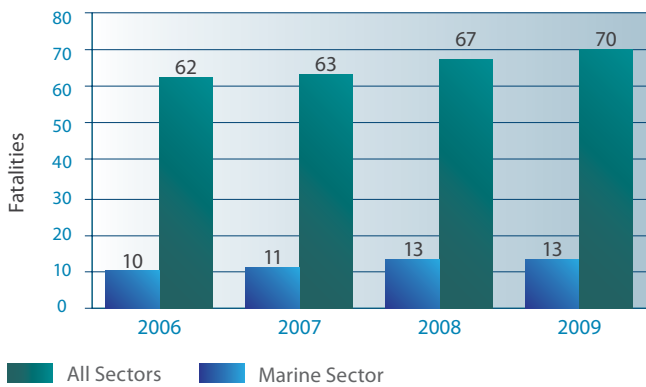
¹ Source: Economic Development Board (Data for Shipbuilding and Ship Repair sector in 2009 was unavailable at publication time, the figure for 2008 is used instead).
² Source: Association of Singapore Marine Industries Annual Report 2008 (based on marine and offshore industry).
³ Source: Ministry of Manpower (MOM).



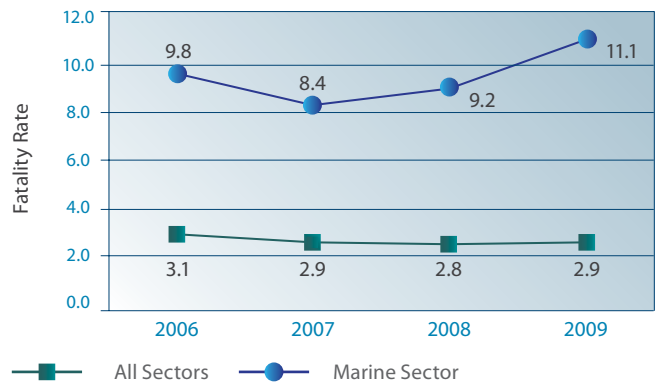
b. WSH Performance of the Marine Sector

Workplace Safety and Health (WSH) is a key challenge for the marine sector. Although the sector has made progress in its WSH performance over the years, there has been a rise in workplace fatality rates in recent years, from 9.2 per 100,000 workers in 2008 to 11.1 in 2009. The sector's injury rate also climbed from 399 per 100,000 workers in 2008 to 417 in 2009.

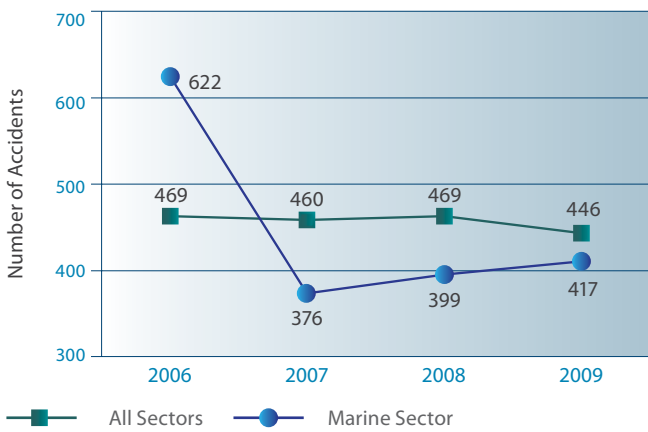
NUMBER OF FATALITIES IN THE MARINE SECTOR COMPARED TO ALL SECTORS, 2006 – 2009



ACCIDENTS IN THE MARINE SECTOR BY FATALITY RATE COMPARED TO ALL SECTORS, 2006 – 2009

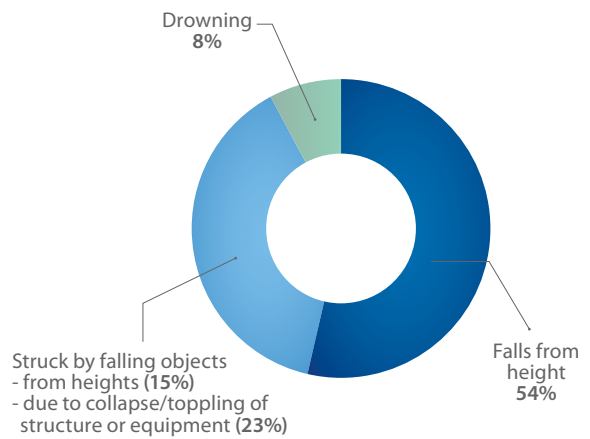


ACCIDENTS IN THE MARINE SECTOR BY INJURY RATE COMPARED TO ALL SECTORS, 2006 – 2009

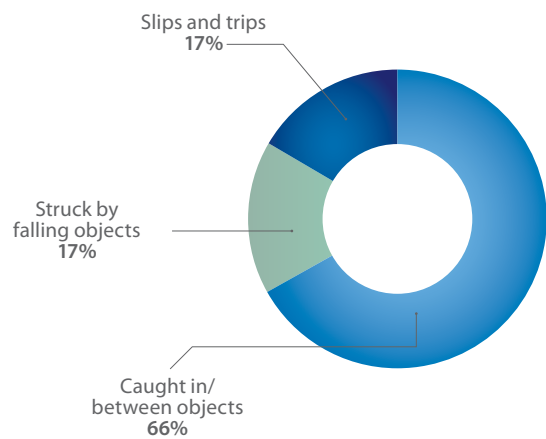


The leading contributors of fatalities are falling from heights and being struck by falling objects⁴, which collectively accounted for over three quarters of the 13 work-related fatalities seen in the sector in 2009. Of the seven fatalities due to workers falling from heights, three were due to workers falling into the sea, two due to workers falling into openings and another two involved workers falling from an elevated height during work.

MAIN CONTRIBUTORS TO FATAL ACCIDENTS IN THE MARINE SECTOR, 2009

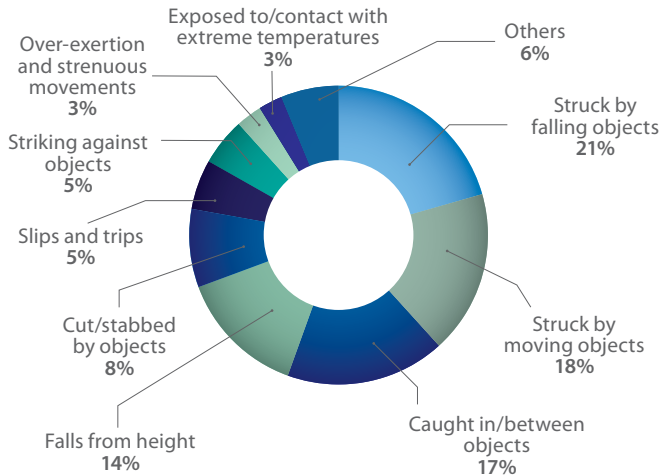


BREAKDOWN OF PERMANENT DISABLEMENTS IN THE MARINE SECTOR BY ACCIDENT TYPE, 2009

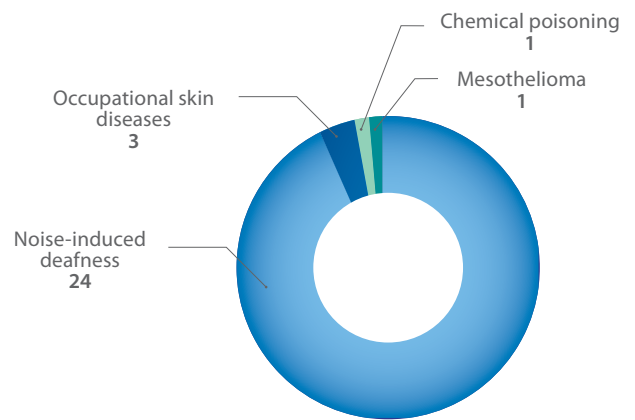


⁴ Falling objects include objects falling from heights; and collapse or toppling of structure or equipment.

KEY CONTRIBUTORS TO TEMPORARY DISABLEMENTS IN THE MARINE SECTOR BY ACCIDENT TYPE, 2009

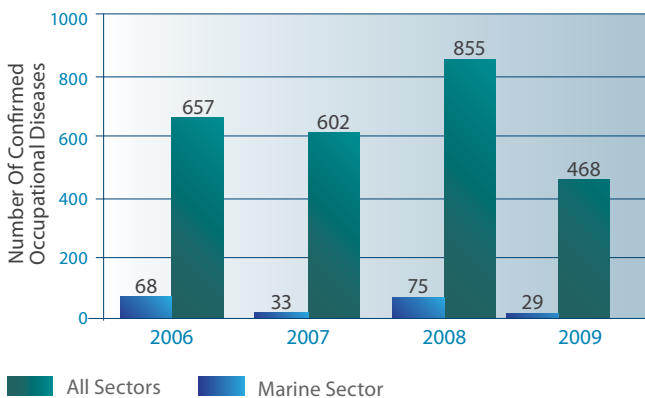


BREAKDOWN OF OCCUPATIONAL DISEASES IN THE MARINE SECTOR, 2009



Noise-Induced Deafness (NID) forms the bulk of occupational disease cases reported in the marine sector. In 2009, 29 confirmed ODs were reported in the sector, of which 24 were NID cases (down from 70 cases in 2008). There were also three confirmed cases of occupational skin diseases, similar to 2008.

NUMBER OF CONFIRMED OCCUPATIONAL DISEASES IN THE MARINE SECTOR COMPARED TO ALL SECTORS 2006 – 2009



c. Roles and Responsibilities of Stakeholders

Shipyard Occupiers

The shipbuilding, ship repair, rig building and offshore engineering form the backbone of the local marine sector, accounting for more than half of the total sector revenue in 2008. Thus, the shipyard occupiers play a major role in shaping the sector's WSH culture.

As the major buyer for marine supporting services and with heavy dependency on outsourcing, the shipyard occupiers play a critical role in ensuring WSH outcomes. Shipyard occupiers can positively influence their contractors' and subcontractors' WSH performance, by specifying WSH considerations in their contracts, in addition to financial and quality requirements. The shipyard occupiers are responsible in ensuring that their WSH management systems are robust, and that the contractors, workers and other relevant stakeholders such as ship owners and ship crew comply with the systems. The shipyard occupiers should also set the bar for the WSH competency standards for the various trades in the sector to provide benchmarks for other players within the sector, such as anchorage repair services, to aim towards.

Contractors

The marine sector has a well-established system of residential, common and external contractors. Residential contractors are typically permanently deployed within a particular shipyard, while common contractors are cross deployed around various shipyards. Their work is complemented by external contractors, such as those nominated by ship owners for more specialised works.

Contractors work closely with the shipyards, and ensure that their work is aligned with the WSH management systems of the shipyards and that their workers do not undermine or bypass these systems. However, contractors should not rely solely on the shipyards' WSH management systems, and should conduct thorough risk assessments of their own prior to starting work. The contractors should also be proactive in highlighting WSH lapses and areas for improvements to the shipyards. Main contractors who engage subcontractors are responsible for overseeing and influencing the WSH performance of their subcontractors.

At the systems level, the residential and common contractor network provides an ideal platform for the sharing of WSH best practices and knowledge, thus facilitating the uniform improvement of WSH standards across the marine sector.

Ship Owners, Agents and Ship Crew

Ship owners, their agents and crew are actively involved in shipyard and anchorage activities, as they test, commission and operate equipment onboard their ships, oil rigs and Floating Production Storage and Offloading (FPSO) platforms, and so on. Given their active roles, ship owners and agents should be aware of the impact of their work on the safety and health of others on board the ships and their obligations under the WSH Act (WSHA). Ship owners and agents should ensure that their work is aligned with the WSH management systems of the shipyards (e.g., by adhering to the permit-to-work system) and the WSH requirements set by the Maritime and Port Authority of Singapore (MPA).

Ship crew are brought in for their expertise in operating specialised equipment onboard the ships and are typically only in the shipyard or anchorage for a short period of time before moving on to other destinations. Therefore, they may be relatively unfamiliar with the environment in which their ships are berthed in. However, they may be required to perform high risk works, such as lifting work, to facilitate the building or repairing process. It is important that the ship crew are familiar with the WSH requirements and understand the WSH impact of their work on other ongoing activities onboard the ships and within the shipyard.

WSH Professionals

The marine sector leverages heavily on the expertise of the WSH professionals to identify and manage risks specific to the marine sector. The WSH professionals monitor the WSH management at the shipyards and drive WSH improvements beyond the minimum compliance with legislative requirements. They ensure that the WSH management systems in the shipyards are robust and up-to-date, through regular workplace inspections and in-house audits by identifying WSH gaps and recommending cost-effective and practical solutions.

Ship Repair Managers, Supervisors and Workers

Ship repair managers perform a role within the shipyard similar to that played by project managers in a construction site. In overseeing the management of a project, they play a critical role in engendering a strong WSH culture within the shipyard. They can do so by making WSH a key agenda item in meetings they preside over, closely monitoring incident statistics for their projects, and reviewing these incidents to ensure that the team learns from the incidents and makes improvements in WSH management.

As a key link between management and workers, supervisors help translate management commitment to WSH into concrete practices on the ground, by advocating good WSH practices within their team and correcting any unsafe acts or conditions they come across. Likewise, workers also have a role to play in WSH, as WSH improvements should not be solely driven from top-down. Workers should participate proactively in safety and health programmes not only to improve the WSH performance of the company, but for their own personal development as well. They should also take personal responsibility to protect themselves and their co-workers by highlighting any safety and health lapses to their supervisors and helping to ensure that the necessary measures are taken to rectify the lapses.

The Marine Sector Associations and Unions

There are several marine sector associations in Singapore. The Association of Singapore Marine Industries (ASMI) represents a large proportion of shipyards and marine contracting companies in Singapore. The Singapore Shipping Association (SSA) represents the interests of ship owners and agents operating in Singapore. These associations represent the diverse interests of the marine sector and serve as important platforms to reach out to industry stakeholders. They can also help to coordinate and drive self-regulation within the sector, for example, by securing the community's commitment to adopt higher WSH standards or coordinating cross-shipyards audits to ensure compliance with established standards.

Key professional bodies supporting the marine sector include the Singapore Institution of Safety Officers (SISO), the Institution of Engineers Singapore (IES) and the Society of Naval Architects and Marine Engineers Singapore (SNAMEs). Given the role their members play in providing WSH advice to shipyards, it is important that these associations continue to build a core pool of professionals with expertise in managing the WSH risks peculiar to the marine sector.

As the key marine sector union, the Shipbuilding and Marine Engineering Employees' Union (SMEEU) is an important channel for feedback on worker issues. The SMEEU is also an important partner in engagement activities to raise the WSH awareness and capabilities of marine sector workers.

TARGETED OUTCOMES



TARGETED OUTCOMES

To achieve our long-term sectoral goal of a safe and healthy workplace with a vibrant WSH culture and zero injury, we have identified the following intermediate goals for the marine sector:

- a. Halve the 2008 marine sector fatality rate to less than 4.6 fatalities per 100,000 workers by 2013, and to less than 1.8 fatalities per 100,000 workers by 2018.
- b. Reduce workplace injury rate to less than 200 injuries per 100,000 workers by 2013, and less than 100 injuries per 100,000 workers by 2018.

IMPLEMENTING WSH 2018
FOR MARINE SECTOR



IMPLEMENTING WSH 2018 FOR MARINE SECTOR

We have identified four strategies to improve WSH standards in the marine sector

Strategy 1: Driving Implementation of Effective Risk Management

Currently, the majority of companies within the marine sector conduct at least basic risk management for their work activities. However, incidents continue to take place due to gaps in risk assessment and in the implementation of proper control measures. In order to raise the WSH performance of the marine sector, the quality of risk management needs to be improved. This includes ensuring that the risk assessment conducted is comprehensive and that there is proper identification of control measures using the hierarchy of controls, that is, to consider the possibility of eliminating the work activity, substituting the work process or hazardous material involved, implementing engineering controls or taking administrative measures before resorting to the provision of personal protective equipment. This would involve work in these areas:

a. Improving risk management conducted by contractors

It is a common practice in the shipyards for shipyard occupiers to assist their contractors in identifying the key risks involved in their work. Many contractors adopt these risk assessments without further contextualising them to their actual operating environment. This may result in inappropriate or insufficient control measures being taken. Shipyards need to set up a system to improve their oversight of the risk management of their contractors. This can include conducting more in-house audits on the quality of the risk management and incorporating such checks at the vessel safety coordination committee meetings. Given that many of these contractors depend on the risk compendium to conduct the risk management, the quality of the compendium should be regularly reviewed and enhanced.

b. Involving ship owners and crew in risk management

The ship owners and crew hold the domain knowledge of their vessels. It is important to involve them in the risk assessment activities as they are able to identify the common pitfalls or hazards faced when working on the vessel. With their assistance, the risk can be appropriately identified, assessed and addressed.



c. Driving implementation of risk management in the smaller shipyards

The bizSAFE programme provides a systematic process to guide companies in building their risk management capabilities. The programme can be an effective lever as it addresses the resources and commitment issues faced by the smaller shipyards and contractors.

Contractors should undergo the programme and minimally develop the capability to conduct risk assessment and implement the risk control measures or attain bizSAFE level 3 status. Given that all shipyards are already required to have a safety management system, the smaller shipyards should leverage on the programme and ensure their system is robust or attain the bizSAFE Star status. The larger shipyards can also be engaged as bizSAFE partners and include WSH performance as part of their contractual terms during project tenders, as well as give more recognition to bizSAFE certified companies. Ultimately, they should aim to be bizSAFE mentors to lead and guide the smaller shipyards and contractors in raising their WSH capabilities.

Assistance from the WSH Council such as the Risk Management Assistance Fund (RMAF) is available to help small and medium enterprises (SMEs) to implement risk management. As a start, we aim to get all contractors serving the sector to attain at least bizSAFE level 3 status, all resident contractors from the major shipyards to attain bizSAFE Star status and have at least 10 bizSAFE mentors by 2012.

d. Improving incident investigation

Most shipyards have incident investigation capabilities. However, current investigations are mostly focused on identifying the direct cause of an incident and does not assess whether there may be broader systemic failures within the shipyard. For instance, while the direct cause of a fall-from-height incident may be the failure to barricade the open side, the safety lapse may be due to a broader systemic failure of the shipyard occupiers in the coordination of work with the contractor. Uncovering these systemic failures during the incident investigation process will enable shipyards to reduce the risk at source, rather than taking ad hoc safety measures.

To assist the sector in doing so, we will explore developing incident investigation courses with a focus on addressing systemic issues or integrating such modules into existing risk management courses. In addition, it is crucial that we go beyond accidents and look at near-misses to have a comprehensive understanding of the root causes of accidents. We will therefore develop a near-miss management system to provide a structured means for the sector, particularly for the smaller shipyards, to report, analyse, retrieve, share and learn from incident investigation findings.

Strategy 2: Enhancing WSH Capability Building

Being labour intensive, the sector faces challenges in the area of manpower capability building. The largely foreign and transient workforce adds to the complexity in building and sustaining WSH capabilities in the sector. The sector associations and professional bodies work closely with relevant agencies such as the WSH Council and Workforce Development Agency (WDA) in addressing the WSH capability gaps in the sector. Critical trades and professions within the sector are identified to focus efforts in building its WSH training framework and standards. However, there is a distinct disparity in the training standards between the larger shipyards and the smaller ones, as the larger shipyards have more resources to support their training facilities and uphold their training standards. Hence, more efforts need to be drawn to help the smaller companies to raise their WSH capabilities and bridge the difference in competencies.

Workers must be familiar with the complex marine work environment as many of the hazards in the sector are insidious. For instance, the use of non-flame proof lights can spark a flash fire during normal painting works in a confined space. Basic safety training for workers should therefore go beyond explaining the legal requirements under the WSH Act and basic safety measures. The training should familiarise the workers with the environment they will be deployed in and its inherent hazards, and be able to explain what measures and work processes should be undertaken to mitigate these risks.

To help stakeholders raise the level and better contextualise the training provided to workers, we will focus on the following areas:

a. Marine trade-specific competency courses

The development of trade-specific competency courses for the marine sector is a useful starting point to provide workers with training that enhances their understanding of the marine work environment and contextualises their work to this environment. In 2009, the WSH Council (Marine Industries) Committee and WDA co-launched the 13 trade-specific competency courses for the marine sector, covering trades such as welding, tank cleaning and scaffolding. The WSH Council and WDA will work closely with the shipyards to monitor the competency framework and ensure good take-up rates of these courses.

b. Marine Industry Training Centre (MITC)

The MITC would be a good platform to level up the training provided to workers across the marine sector. It will address the current situation whereby the bigger shipyards are better equipped with the necessary infrastructure to provide adequate training to their employees and contractors, resulting in disparity in training standards compared to the smaller shipyards. One of the focus areas identified includes providing training for the SMEs in the marine sector. The industry-led MITC is envisioned to be a one-stop centre in providing relevant trade-specific and broad-based skills training for marine workers. It would provide more contextualised training by integrating components to familiarise workers with the marine work environment. The MITC can also be more responsive to the needs of the sector and introduce courses that address emerging WSH issues in the sector.

c. Raising certification standards for supervisors and line managers

Supervisors and line managers play a critical role in helping workers to be aware of the WSH risks they face at the workplace and the control measures to be put in place. To raise their competencies, existing courses for supervisors have to go beyond merely articulating the legal WSH requirements. Instead, we will incorporate modules on hazards communication and worker management in the existing Shipyard Safety Instruction Course (SSIC), Safety Instruction Course for Ship Repair Managers and Shipyard Supervisors Safety Course (SSSC). The Ministry of Manpower (MOM) and the WSH Council will also increase their oversight on these courses and progressively raise the standard of the certification tests.

Stakeholders should focus their enterprise capability building efforts in the areas that are most critical or that they are weakest in. To help stakeholders identify what these areas are, we will focus on:

a. Supplementing practical assistance

Practical assistance programmes and guidance materials will be developed and implemented to aid the companies in the marine sector to achieve higher level of WSH standards. We will look into best practices within the industry and help companies integrate these practices into their operations. To ensure applicability to all workplaces, the nature and size of businesses will be taken in consideration. Communication platforms and learning aids such as forums and case study booklets will be launched to educate and share lessons learnt from past incidents. More efforts will be placed on hot spots such as fire and explosions, confined space and work at height. We will also work with SPRING Singapore to develop and progressively review codes of practice for the marine sector.

b. Improving management of workplace health

There is a need to improve the management for workplace health related matters. Raising industry awareness on occupational diseases through engagement and education continues to be the main lever, with particular emphasis on NID. A workplace health baseline study will be commissioned to gain a better understanding of and address workplace health issues associated with the marine sector. To better track, analyse and manage the occurrence and trend of occupational diseases at workplaces, we will also explore expanding the coverage of workers' health screening. Examinations such as chest x-ray, hearing and colour blindness tests can be made mandatory for workers who may be at greater risk. Moving forward, we will strive to garner industry buy-in for the provision of periodic employment checks for workers.

c. Enhancing WSH statistics collection for the marine sector

Tracking leading indicators, rather than lagging indicators (such as accident statistics) can help the stakeholders to identify WSH concerns upstream and pre-empt the occurrence of incidents. We will widen the range of statistics captured to include leading WSH indicators such as near-miss reporting. It is also important for marine sector stakeholders to be informed of the relevant developments within the sector and their impact on WSH, so that the stakeholders can identify areas where capability building needs to be enhanced. As a start, we will look into commissioning baseline studies into key areas such as workplace health. The outcome of the study will provide us with a better appreciation of the areas of concern; thereby enabling the devise of suitable programmes to improve workplace health management.

d. Tools to benchmark WSH performance

Baseline studies and WSH indicators will help stakeholders identify, at the sectoral level, focal areas for WSH capability building. We can complement these with benchmarking tools, which can help companies identify areas of concern specific to their organisations. The WSH Council has announced plans to develop a WSH culture index to measure the state of WSH culture in Singapore. The WSH culture index will be used to measure and monitor the state of WSH culture at national, sectoral and organisational levels. We will participate in the development of the culture index for the sector and target for bigger companies to spearhead this initiative. As the envisioned WSH 2018 landscape of the marine sector is built on a strong WSH culture, it underscores the importance of raising industry capabilities in the areas of safety observation and intervention. As a follow-up from the Marine Industries Diagnostic Analysis conducted previously, we will also build up these competencies by equipping companies with relevant tools to carry out their in-house behaviour-based safety programmes.

Strategy 3: Developing and Implementing Intervention Programmes

To gain better understanding of the sector and work specific hotspots, more in-depth studies on top marine concerns will be conducted and appropriate recommendations and action plans will be developed based on these studies.

a. Industry-led taskforces

There is a need for greater industry participation to provide the ground intelligence for an appropriate and calibrated response. This can take the form of industry-led taskforces. These taskforces will work with the WSH Council and undertake the ownership to set industry standards for safe work, develop WSH capabilities and galvanise the sector's efforts and commitment by setting milestones and targets for the sector. In the immediate term, we will participate in the cross industry taskforces or form WSH Council (Marine Industries) Committee-led workgroups to focus on the following leading contributors to workplace fatalities in the marine sector:

(i) Confined space

Over the years, even though the marine sector has developed a good system in addressing confined space risks, we continue to see confined space related incidents. As there are still challenges to be addressed, a taskforce will have to drive the development of an effective confined space programme, for example, leveraging on regular inspections and expert assessment of the workplace so as to identify possible confined spaces and evaluate its control measures. We will aspire to establish a plan on confined space works by 2011.

(ii) Working safely at height

Despite our efforts over the past few years, fall-from-height continues to be a key problem in the marine sector. This situation is unsatisfactory. A proper system should be set up so that work can be performed safely at height. A holistic approach should be taken such that it does not merely address physical lapses. To do

so, the National Work at Height Taskforce will need to establish an engagement plan such that shipyards are encouraged to put in place a fall protection plan that outlines the shipyards' policy and measures to deal with the issues at the systems level. We will drive efforts to achieve the 100% implementation of the fall protection plan in the marine sector by 2012.

(iii) Lifting operations

Lifting activities form a bulk of the work within the shipyard. There is a huge difficulty in tracking the lifts conducted and enforcing established lifting procedures. For example, simple lifting works such as transferring waste bins from ships to the dock have caused incidents. A key challenge for the National Crane Safety Taskforce will be to develop a system for the shipyards to coordinate the lifts conducted. This can come in the form of a lifting plan coordinated by a dedicated lifting engineer and supported by the staff of lifting supervisors in order to maintain adequate oversight of all lifting work. We will focus our efforts to achieve 100% sector-wide implementation of the lifting plan by 2012.

b. Enhancing self-regulation

Commitment to WSH must be illustrated through proactive actions to eliminate or reduce risks at workplace before they result in incidents.

Self-regulation is one such avenue. Recognising this, we will be taking the lead in developing the Marine Industry Safety Engagement Team (MIndSET). Under this programme, participating companies will conduct "cold eye" review on the WSH management system and cross inspection of the workplace amongst the shipyards. Through the participation in MIndSET, companies will gain a better understanding of their blind spots such that early intervention actions can be taken to close the gaps. This peer-to-peer sharing will create a robust exchange of WSH knowledge and practices.

c. Ensuring the quality of subcontractors

Many employers are not involved in the selection of subcontractors when they engage the service of main contractors. While it is the responsibility of main contractors to ensure the quality of service to be delivered, it is often not the case. The main contractor tends to select subcontractors who provide the services at the lowest cost. As a result, the subcontractors will undercut to compete with their competitors. It is therefore important for the employers to specify the quality of subcontractors required in the contract in terms of their WSH competencies and performance. Upon selection, the employers must continue to work closely with their subcontractors to ensure that they fulfill the expectations to carry out their work safely.

Strategy 4: Strengthening Stakeholders' Involvement in WSH

To ensure that improvements in the WSH performance of the marine sector are sustained, the commitment of all stakeholders to WSH in the marine sector is important. To create a sustainable culture whereby every worker is an advocate for WSH, we need to start from the top. Senior management plays a critical role in setting the tone for the WSH culture within their respective organisations. We can work with the marine sector industry associations to help senior management articulate and demonstrate their commitment to WSH, and translate their commitment into concrete initiatives. This would include helping them engage ship owners and ship crew on WSH requirements and matters.

a. Creating platforms for senior management to demonstrate commitment

The "Pledge for Zero" (PfZ) aims to bring together the key players to achieve zero injury for the sector. As part of the PfZ, the top management who pledge their commitment to having a zero injury will have to develop a structured plan for their company, detailing specific initiatives and milestones to meet the target of zero injury. The PfZ programme includes regular sharing platforms for the top management to share best practices and to benchmark their company's safety performance against others. With the major shipyards signing the inaugural PfZ for marine sector, we aim to create a cascading effect to the smaller shipyards to likewise pledge their commitment towards improving their WSH standards. By 2018, we aspire for all registered shipyards to come on board the PfZ movement. With the strong commitment and involvement of senior management, we envisage that best practices will become the norm in shipyards and the marine sector will be able to take quantum leaps in terms of improvements in its WSH standards and performance.

b. Strengthening the engagement of ship owners and crew

We need to address the challenge of ensuring that the work directed by ship owners is aligned with the WSH management systems of the shipyard. Shipyards must ensure that there is adequate oversight and coordination of the work of the ship crew, who are based in the shipyards on a short term basis and are relatively unfamiliar with the shipyard environment. They should brief ship owners on their WSH obligations and the shipyards' WSH requirements before actual work on their ships commence. Any differences in the WSH procedures between the ship crew and shipyard must be addressed. The shipyard should also conduct regular briefings for the ship crew before and during their stay in the yard. Similarly for anchorage activities, the ship owners are obliged to align to WSH requirements set by MPA and WSH Council.

IMPLEMENTATION AND REVIEW

An Action Plan has been charted out to implement the identified strategies. The details of this Action Plan can be found in Appendix A. The WSH Council (Marine Industries) Committee, together with support from WSH Council and MOM will monitor the implementation of the key areas of work and develop successive milestones based on feedback from key stakeholders to better reflect the changes in the operating environment and market sentiments.

CONCLUSION



CONCLUSION

This document is the marine sector's plan to support the national WSH 2018. It sets out the targeted outcomes and WSH strategies for the marine sector for the next ten years. This document was developed through extensive consultation with our stakeholders and partners, and we are committed to implementing this plan. The full implementation of this plan will mark a major milestone in driving the marine sector towards a safer and healthier workplace for all.

APPENDIX A – ACTION PLAN

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Strategy 1: Driving Implementation of Effective Risk Management

Improving Risk Management (RM) Conducted by Contractors

- Review and update the existing online Risk Compendium for the marine sector and include anchorage activities.
- Develop guidance materials to aid companies in conducting RM such as development of a step-by-step RM guide and pictorial illustration on RM implementation.
- Support WSH Council's effort in working with training providers and other relevant institutions to review training curriculum of RM training courses and customise them for better applicability in the marine sector.

- Establish regular feedback with industry associations and professional bodies through platforms such as the WSH (Marine Industries) Committee and Sub-Committees to get a better understanding of the demand for RM training courses in the industry and to ensure the market supply is sufficient to meet industry needs.

Involving Ship Owners and Crew in Risk Management

- To drive all shipyards to involve ship owners and crew in the risk assessment exercise.



Driving Implementation of Risk Management in the Smaller Shipyards

- To achieve 100% RM implementation across the sector within three years. Encourage utilisation of the Risk Management Assistance Fund (RMAF) to help SMEs offset the initial costs of integrating WSH management and risk assessment systems into their business processes.
- To drive all larger shipyards to be bizSAFE partners within three years and encourage them to influence their downstream contractors to implement RM.
- To drive all contractors to attain at least bizSAFE level three and all resident contractors of major shipyards to attain bizSAFE Star.
- To have 10 bizSAFE mentors in the marine sector by 2012.
- To have all shipyards include WSH performance as part of the contractual term during project tenders within three years. One way is to establish industry buy-in to only engage bizSAFE-recognised companies during their selection of contractors.
- Tap on large organisations and associations in order to reach out to anchorage repair contractors so as to raise their awareness on the importance of WSH.

Improving Incident Investigation

- Assess gaps in organisations' incident investigation reporting system.
- Develop an incident management system to ensure proper reporting, analysis and sharing of incidents, including near misses.
- Develop incident investigation courses such that they focus on addressing systemic issues.
- Customise WSH performance tracking tool, originally developed by WSH Council (Construction and Landscape) Committee, for companies to track WSH performance.
- Develop and promote incident case studies.

Strategy 2: Enhancing WSH Capability Building

Marine Trade-specific Competency Courses

- Evaluate effectiveness of the marine trade-specific competencies and regularly review the curriculum to ensure that it remains relevant.
- Integrate WSH into all trade-specific training courses.
- Develop WSQ-WSH professional competency standards for divers, crane operators and riggers.
- Promote and incentivise the adoption of WSQ courses.
- Support WSH Council's initiatives to refine the WSH training framework for foreign workers to provide WSH training in the workers' home countries.

Marine Industry Training Centre

- Support the feasibility study of setting up a dedicated industry-led training centre for the marine sector.
- Work with industry associations, agencies and training providers to set up the Marine Industry Training Centre by 2013.

Raising Certification Standards for Supervisors and Line Managers

- Explore the retention of a core pool of skilled and experienced supervisors and workers, and leverage on them to share their WSH knowledge and improve the WSH culture in the workplace.
- Enhance mandatory Shipyard Safety Instruction Course (SSIC) to anchorage sector, targeted at non-ship repairers.
- Raise the standard of the SSIC and include accountability and legal responsibilities of workers.
- Review and enhance the Safety Instruction Course for Ship Repair Managers and Shipyard Supervisors Safety Course (SSSC), incorporating legal accountability and responsibilities.
- Identify relevant soft skill trainings, such as effective communication skill, to be incorporated into supervisory and ship repair manager courses.

Supplementing Practical Assistance

- Collaborate with MOM in the development and review of codes of practice and legislation to help the industry, especially the SMEs.
- Identify industry hot spots and develop guidance materials to educate the sector.
- Set good practices on accountability and responsibilities of various job functions in an organisation (e.g., senior management, line management, safety professionals).
- Supplement existing industry in-house orientation package by developing animated and pictorial guidance to aid learning for new workers.
- Set up supporting industries to provide certification of activities. For example, to provide hot work assessors to smaller yards who may be constrained by resources.
- Compile best practices and develop tools to help companies implement these best practices.
- Gather feedback to improve existing programmes and initiatives, and further develop new ones.

Improving Management for Workplace Health

- Develop programmes to raise awareness on occupational diseases, with particular emphasis on NID. This can include outreach activities and guidance materials to educate stakeholders on their obligations and measures for better workplace health management.
- Review and explore the feasibility of expanding the existing coverage for workers' health screening and to include periodic check-up during employment.
- Create awareness of workplace health among the management and communicate rising trends by incorporating workplace health components in general outreach efforts such as the CEO forums.
- Customise workplace health communication package to the marine sector and promote its implementation.

Enhancing WSH Statistics Collection for the Marine Sector

- Identify missing information, measures and indicators in the current reporting system.
- Commission an in-depth study of the marine sector to develop suitable leading indicators and measures. The study will aim to develop a more holistic picture of WSH conditions and will also incorporate a human behavioural study.
- Support MOM's effort in conducting a workplace health baseline study to look into various health issues associated with the marine sector, including physical health (i.e. fatigue, ergonomics), psychological/ mental health (well-being), adequate nutrition and hydration as well as other occupational diseases.

Tools to Benchmark WSH Performance

- Develop a self assessment test sheet for companies to ascertain their existing WSH state. Depending on their WSH state, companies can then refer to a guide on how to address these gaps.
- Develop toolkits to assist companies in carrying out safety observation and intervention. This can comprise of checklists, samples for easy reference and guidance materials for observers in conducting effective safety observation and intervention.
- Support the development of the WSH culture index to measure and monitor the state of WSH culture in the marine sector.
- Promote WSH Council's efforts in developing a structured programme to help stakeholders build WSH culture within their respective organisations.
- Influence large organisations to pilot the culture building programme and share the experience with smaller companies so as to guide them through the programme.

Strategy 3: Developing and Implementing Intervention Programmes

Industry-led Taskforces

- Develop and execute programmes and measures based on findings of the diagnostic study to target efforts.
- Establish a plan on Confined Space Work to address associated WSH concerns within two years.
- Drive efforts of the national taskforce on Work at Height (WaH) safety to achieve 100% implementation of a fall protection plan by 2012.
- Drive efforts of the national taskforce on safety in crane lifting operations to achieve 100% implementation of lifting plan by 2012.

Enhancing Self-regulation

- Develop and pilot self-regulation model, Marine Industry Safety Engagement Team (MindSET) for the shipyards through “cold eye” review where a neutral party reviews and critique on the WSH management of a shipyard.

Ensuring Quality of Sub-contractors

- To encourage employers to depict the quality of subcontractor required, in terms of their WSH competencies and performance, in the contractual requirement when engaging main contractor.

Strategy 4: Strengthening Stakeholders’ Involvement in WSH

Creating Platforms for Senior Management to Demonstrate Commitment

- Provide regular platforms such as CEO forums to promote WSH to the management and to garner management buy-in. These platforms can also be used to influence the smaller shipyards or marine service providers to embrace WSH as integral part of business.
- Share information and conduct dialogue sessions with senior management of companies so as to facilitate exchange of innovative WSH ideas and best practices through platforms like the CEO round-table sessions.
- Implement the “Pledge for Zero” (PfZ) engagement programme and achieve 100% participation of all registered shipyards in the programme by 2018.

Strengthening the Engagement of Ship Owners and Crew

- Promote WSH to ship owners through SSA such as seminars.
- Extend the requirements to undergo SSIC or similar WSH orientation courses to ship crew and non-seamen.
- Develop and disseminate pictorial guide and video on safe boarding of vessel at anchorage or dock. This is to improve the safety of contractors engaged by the ship owners.
- Develop and disseminate short guide on WSH Act for ship owners and their obligations.
- Enhance the communication on the requirements of WSH Act to ship owners.

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