

# Workplace Safety & Health in Singapore

**SURESH NAVARATNAM IS DIRECTOR OF POLICY, INFORMATION AND CORPORATE SERVICE IN THE OCCUPATIONAL SAFETY AND HEALTH DIVISION OF THE MINISTRY OF MANPOWER.**

*In this two-part interview, Suresh Navaratnam, Director of Policy, Information and Corporate Service in the Occupational Safety and Health Division (OSHD) of the Ministry of Manpower (MOM) in Singapore, provides an overview of Singapore's workplace safety and health framework as well as an update on the country's work at height initiatives.*

## PART 1: SINGAPORE'S OSH PROFILE

**IPS:** *What is the workplace safety and health framework in Singapore? Briefly describe the underlying principles behind the framework.*

**SN:** Singapore's workplace safety and health (WSH) framework guides the management of WSH by all stakeholders—the government, industry, as well as employees. The framework was designed to bring about a paradigm shift and to ingrain

good WSH habits in all individuals at the workplace. This is enshrined in the three key principles of the framework, with risk management being the cornerstone.

The first principle under the new framework is to eliminate or to mitigate risks before they are created. All stakeholders in workplaces thus need to conduct risk assessments to help identify the risks and their sources, as well as measures that should be taken to eliminate or to reduce the risks identified.

The second principle of the new framework calls for greater industry ownership of WSH outcomes. Industry must take greater ownership of WSH standards and outcomes to effect a change in WSH culture at the workplace. This would require a shift from a reactive WSH culture that deals with accidents after they have occurred to one that is proactive in preventing accidents from occurring at the workplace. This also requires the adoption of a safety culture at all levels, not just among the management or safety officers, but among every single worker.



Suresh Navaratnam

The third principle seeks to impose greater financial disincentives and penalties on workplaces with unsafe practices and systems, even if accidents do not occur. This is to create an environment where all workplaces find it more cost-effective to improve their WSH management systems, thereby making a strong business case for WSH.

**IPS:** *WSH 2018 Strategy is the national blueprint/strategy for WSH in Singapore. Briefly explain this national strategy and its intended outcomes and targets.*

**SN:** To guide the future development of programs and initiatives, the WSH 2018 Strategy: A Strategy for Workplace Safety and Health in Singapore, was crafted after extensive consultation by MOM and the Workplace Safety and Health Council (WSHC) with industry partners.

## Figure 1 Three Principles of Singapore's Workplace Safety & Health Framework



## Figure 2 WSH 2018 Strategic Map



To realize our goal to achieve one of the best safety records in the world, we need the right mindset and attitude to reinforce the importance of WSH. WSH 2018 makes explicit the need to establish a progressive and pervasive safety and health culture as one of the four strategic outcomes (Figure 2). One key national target is to reduce the workplace fatality rate to less than 1.8 per 100,000 workers by 2018.

Since the launch of the new framework in 2005, Singapore has continued to make good progress toward lowering the workplace fatality rate. It has dropped from 4.9 in 2004 to 2.9 in 2009.

**IPS: What is the key legislation governing WSH in Singapore?**

**SN:** The key legislation is the WSH Act, which is administered by the Commissioner for Workplace Safety and Health. The act introduces a performance-based regime. It emphasizes the importance of managing WSH proactively by requiring stakeholders to take reasonably practicable measures to ensure the safety and health of workers and other persons who may be affected by the work carried out. The WSH Act also assigns liability to those who create and have management and control over WSH risks.

Besides legislation, Codes of Practice provide practical safety and health guidance for specific work areas. These are jointly developed by the industry and regulatory agencies. With the formation of the WSH Council on April 1, 2008, the WSH Act was amended to transfer the power to issue, approve, amend or revoke Codes of Practice to the WSH Council. The WSH Council works in close collaboration with the industry to identify areas where practical guidance is required to address improvements in WSH standards. The WSH Council will then set industry standards for these areas, which may include standards for WSH management systems, specific trades and operation of specific equipment.

**IPS: What are the roles of the Ministry of Manpower and the**

**Workplace Safety and Health Council in Singapore?**

**SN:** Legislation relating to WSH is administered by the Commissioner for Workplace Safety and Health under MOM. MOM’s mission is to work with employers and employees to achieve a globally competitive workforce and a great workplace for a cohesive society and a secure economic future for all Singaporeans. Ensuring that our workplaces are safe and healthy contributes to the overall mission of creating a great workplace. OSHD is the division within MOM primarily responsible for ensuring the safety and health of the workforce.

On April 1, 2008, the WSH Council was formed to take on executive powers to spearhead WSH initiatives. The WSH Council comprises 18 leaders from key industry sectors (such as construction, marine, manufacturing, petrochemical and logistics), the government, trade unions and professionals from the legal, insurance and academic fields. The WSH Council’s main functions are in capability-building for better management of WSH, promoting safety and health at work, recognizing companies with good WSH records and setting acceptable WSH practices.

**IPS: Briefly outline the key strategies and initiatives under WSH 2018 National Strategy.**

**SN: Program-Based Engagement (ProBE)**

The national flagship Program-Based Engagement (ProBE) is an intelligence-led and targeted approach toward tackling WSH problems in “hotspot” areas. For instance, from 2006 to date, ProBE interventions have tackled hazards, such as work at heights, lifting equipment, crane safety, scaffolds, work in noisy environments, metalworking and confined spaces. Intervention efforts range from enforcement to outreach-based education and promotion efforts.

More than 9,000 companies have been engaged under ProBE. Completing ProBE’s systematic process of industry engagement are enforcement efforts undertaken by the ministry. The key learning points and outcomes from the enforcement actions are shared with the industry to further engage them in capability-building for better management of the safety and health risks of their workplaces (Figure 3, p. 12).

**Business Under Surveillance Program**

Workplaces with higher risks and those with poor safety and health performance are monitored under the Business Under Surveillance (BUS) program. Under the scheme, these establishments are closely monitored by the ministry, and where appropri-

**Figure 3**  
**Singapore Workplace Fatalities**  
**(2004-2009)**



Source: Ministry of Manpower, Singapore.

**Figure 4**  
**WSH 2018: A**  
**National Strategy**  
**for Workplace**  
**Safety & Health**  
**in Singapore**



ate, MOM would assist them to improve the management of safety and health at their respective workplaces. Top management from these businesses are also required to develop action plans to improve their WSH performance.

**National Work at Height Safety Task Force**

In August 2009, the WSH Council-led National Work at Height (WAH) Safety Taskforce was formed to consolidate efforts in involving all stakeholders

to further reduce the number of fatal falls at work. Three key recommendations from the National WAH Safety Taskforce include building strong capabilities to manage WAH safety, promoting the benefits of

WAH safety and enhancing the intervention framework for WAH. Since then, the taskforce has rolled out several key initiatives, such as Safety Compliance Assistance Visits, to provide safety educational training to supervisors and workers onsite and to accredit training providers to conduct courses on safe WAH practices.

**National Crane Safety Task Force**

The National Crane Safety Taskforce was formed in July 2009 to raise Crane Safety standards in Singapore. The

National Crane Safety Taskforce has worked with the WSH Council and MOM to review crane incidents that have occurred over the years and has identified important learning points and areas of improvements for safer crane operations. Based on the report findings, the taskforce has made several recommendations and will embark on a three-pronged strategy with the WSH Council and MOM to improve crane safety. These include enhancing competencies, capabilities and awareness of key issues related to the causes of crane accidents, as well as reviewing Codes of Practice and legislation involving cranes and lifting operations.

**bizSAFE Program**

Risk management is an area where we have made good progress in recent years. Risk management was a relatively new and unfamiliar concept to Singapore companies, particularly small and medium enterprises (SMEs), just a few years ago. Now, most companies have a good understanding of what risk management entails. This has been brought about by more companies acquiring risk management capabilities and systems through the bizSAFE Program. Launched in 2007, bizSAFE is a five-step program to assist SMEs in build-

ing their WSH capabilities. Starting from top management, SMEs are guided through a journey to acquire risk management capabilities and to implement a WSH management system. In the process, participating SMEs gain the recognition and benefits of having a comprehensive WSH system in place.

**WSH Professionals Framework**

The development of the WSH Professionals Framework is a key initiative that will raise the level of WSH practices in Singapore. It provides a structured framework for training WSH professionals as well as strengthening their capabilities to identify and manage risks and hazards. The four levels of occupations in the WSH profession are, namely, WSH Representative, WSH Coordinator, WSH Officer and WSH Auditor.

**Practical Assistance**

To support businesses and stakeholders in implementing sound WSH initiatives at the workplace, a wide array of resources have been made available for their use. These resources include codes of practice, technical advisories (for areas such as forklift safety, confined spaces, lifting equipments, and sector-specific guidelines for healthcare, landscape and marine) and compliance assistance toolkits such as checklists and handbooks for supervisors and workers.

**Incident Investigation**

MOM responds to fatal and serious accidents or dangerous occurrences by conducting investigations with the objective of determining their causes and identifying gaps and lapses in WSH management. Through such an approach, MOM is able to intervene strategically to bring about an improvement in WSH standards across the industry. These investigations are conducted by our team of Safety Investigators from the Occupational Safety and Health Inspectorate (OSHI), with the involvement of our Specialist Investigators for investigations requiring specific expertise in specialist fields.



*Left: Singapore's Program-Based Engagement (ProBE) approach engages stakeholders through partnerships and working well together.*



*Right: MOM enforcers in action.*



*Left: MOM surveillance program (BUS).*



*Right: MOM incident investigation.*



*Above: WSH professionals and supervisors conducting safety briefings for workers.*

### **Workplace Safety & Health Awards**

The WSH Awards is an annual event that recognizes both organizations and individuals for actively striving to create safer and healthier workplaces. Award winners are encouraged to share their experiences, best practices and innovative risk control solutions with their industry counterparts as part of the learning and sharing for the industry.

### **National Workplace Safety & Health Campaign**

The National Workplace Safety and Health (NWSH) Campaign is Singapore's flagship national event in promoting workplace safety and health. Currently in its fifth year, the three-month event sees companies holding in-house activities (often with business stakeholders) to celebrate annual WSH performances and milestones, as well as renewing their

pledge to WSH. The campaign also provides opportunities to raise awareness among companies of both broad and specific WSH issues.

### **International & Regional Collaboration**

Through our participation in international conferences and meetings, Singapore has established valuable international and regional networks on the workplace safety and health front. Our partners include regional and international organizations, such as the Association of Southeast Asian Nations Occupational Safety and Health Network (ASEAN-OSHNET), World Health Organization, International Labor Organization (ILO), International Association of Labor Inspection and many others.

As an active partner in ASEAN-OSHNET, Singapore has participated in ASEAN-OSHNET's spearheading of a plan of action for ASEAN members to strengthen their national WSH frameworks. The inaugural WSH Conference, organized by MOM and the WSH Council, was held in September 2010. It received strong support from ILO, a strategic partner. The conference also allowed international and regional delegates to acquire the latest WSH insights to contextualize and

apply to their home countries. As a signatory of the Seoul Declaration for Safety and Health at Work, Singapore is committed to working toward a global culture of safety and health at work. We will continue to learn from international best practices, as well as contribute to global efforts to achieve safety and health for all in the workplace.

**IPS:** *On average, how many falls from height occur at worksites in Singapore each year? What are the primary causes of these falls (faulty fall prevention equipment, lack of training and/or supervision, etc.)?*

**SN:** Falls from height in general account for around one third of all workplace fatalities reported each year. Preliminary findings reveal companies involved in such accidents, in general, fail to establish or effectively implement safety and health management systems with proper control measures and appropriate safe work procedures. This includes an effective fall prevention plan (FPP) for any work that may subject workers to the risk of falling from height. Other contributory causes include unsafe workplace conditions, such as open sides without barricades, floor openings, unsafe scaffolds and unsafe access and egress.

**IPS:** *What standards or guidelines must employers and workers in Singapore adhere to when performing work at height?*

**SN:** Under WSH (Risk Management) Regulations 2006, employers are required to conduct a workplace safety risk assessment and to take all reasonable practicable steps to eliminate any foreseeable risks identified. These risks include working at height. The Code of Practice for Working at Height (WAH) provides practical guidance on good practices required to prevent persons from falling while working at height for all industries. Specific sections in the WSH (General Provisions) Regulations also spell out certain regulatory requirements related to safe work at height. Other regulations, which are relevant for WAH at construction sites and shipyards, can be found in the WSH (Construction) Regulations 2007 and WSH (Shipbuilding and Ship-Repairing) Regulations 2008.

For more information on the

WAH Code of Practice for Working at Height, [click here](#).

**IPS:** *What is the National WAH Safety Taskforce, and what are its goals and objectives for reducing falls from height in Singapore?*

**SN:** The National WAH Safety Taskforce was formed in August 2009 to address the concern of falls from heights at workplaces. The task force comprises industry stalwarts, associations, WAH specialists and government representatives. It aims to take a more concerted effort to involve all stakeholders to further reduce the numbers of fatal falls at work.

The task force's targets include halving current WAH fatality and injury rates by 2013 and further reduction to achieve the national WSH target of less than 1.8 fatalities per 100,000 workers by 2018. The taskforce also aims to implement FPPs in all construction worksites and shipyards by 2012 and at all workplaces by 2015.

The National Work at Height Safety Taskforce made three key recommendations:

**1) Building strong capabilities.**

The task force recommends the implementation of FPPs to manage WAH at a systemic level. The task force and the WSH Council have introduced a new Code of Practice for Working Safely at Height and a new WAH kit for supervisors and workers. The taskforce will also develop national WAH competency standards.

**2) Promoting the benefits of WAH safety.** The task force will collaborate with relevant industry associations and partners to reach out to a wider audience and to promote the adoption of best practices. It will develop a new FALLPREVENT Certification/Recognition Scheme to certify companies FPPs and to recognize their commitment to safety. The WSH Council will develop a dedicated webpage to serve as a one-stop resource for WAH information.

**3) Enhancing the intervention framework for WAH.** The taskforce

will work with MOM on the review of existing legislation on WAH safety. MOM will also look at ways to extend its enforcement reach to more workplaces.

**IPS:** *From April to June 2010, MOM conducted WAH inspections of 2,000+ worksites in Singapore. More than 1,800 safety violations were uncovered. What types of penalties or fines were imposed for these violations? What steps are the companies in question taking to correct these violations?*

**SN:** During the enforcement blitz, MOM inspectors issued notices of non-compliance, composition fines, demerit points and stop work orders for the violations. MOM ordered the contractors to rectify their safety lapses before work can commence at these sites.

Following the issuance of the stop work orders, inspectors revisited the worksites to ensure that safety lapses were rectified and adequately addressed. Depending on the type of safety violations identified, the contractors would take different measures to address their particular safety lapses and violations. Where stop work orders were issued to contractors due to WAH violations, inspectors ensured that the contractors implemented adequate FPPs to reduce fall from height risks at the worksites.

Under WSH (Risk Management) Regulations 2006, the employer, self-employed person or principal who fails to conduct a workplace safety risk assessment or to take all reasonable practicable steps to eliminate any foreseeable risks shall be liable to a fine up to \$10,000. Repeat offenders shall be liable to a fine up to \$20,000 or to 6 months imprisonment or both. For more severe violations, the WSH Act provides for even higher maximum penalties. Individuals may be liable to a fine up to \$200,000 or to 24 months imprisonment or both. Corporations may be liable to a fine up to \$500,000.

**IPS:** *In July 2010, the National WAH Taskforce released a training*

*course for line supervisors to help reduce WAH risks in the workplace. How have line supervisors responded to the training course thus far?*

**SN:** Since the launch of the training course for line supervisors in July, more than 300 supervisors have undergone the 2-day training. We continue to see encouraging responses as more companies are sending their supervisors to attend this first-of-its-kind course in Singapore. Comprising both the theoretical and practical aspects, the two-day course covers a wide range of topics. These include fall prevention systems, use of proper equipment, risk assessment awareness, safe work procedures, as well as incident investigations and emergency planning. Supervisors who attended the course gave positive feedback as they were able to develop and implement FPPs at their workplaces. In addition, these supervisors are now better equipped to identify and use appropriate PPE and systems for their fellow workers.

**IPS:** *How are training providers selected for the WAH training course? What criteria must training providers meet?*

**SN:** Trainers who wish to conduct WAH training courses must first become MOM Accredited Training Providers (ATPs). Training providers must undergo a rigorous accreditation process where MOM evaluates their proposed course syllabus and examination questions based on the Curriculum Development Advisory (CDA)\*, information on their trainers, layout of the training area and other supporting documents. MOM reviews these documents against the CDA, evaluates the competency of the companies and conducts inspection and audits to ensure compliance with MOM's requirements

Upon accreditation, ATPs must conduct the WAH courses in line with the stipulated learning objectives and other criteria listed in the CDA, such as course duration, maximum class size, recommended trainer and trainee ratio, etc. ATPs shall



*Left: Toolbox meeting during WAH training course for line supervisors.*



*Right: Donning of fall prevention equipment and conducting self-checks and buddy checks.*



*Above: Instructor's demo. Setting up temporary vertical lifelines.*



*Above: SCAV vehicle that travels around Singapore to provide practical assistance to workplaces to improve WAH safety.*



*Left: Enhancing the standards of WAH-related safety conditions and practices by helping companies identify and rectify safety lapses through professional advice.*



*Right: Providing on site safety awareness education to supervisors and workers.*



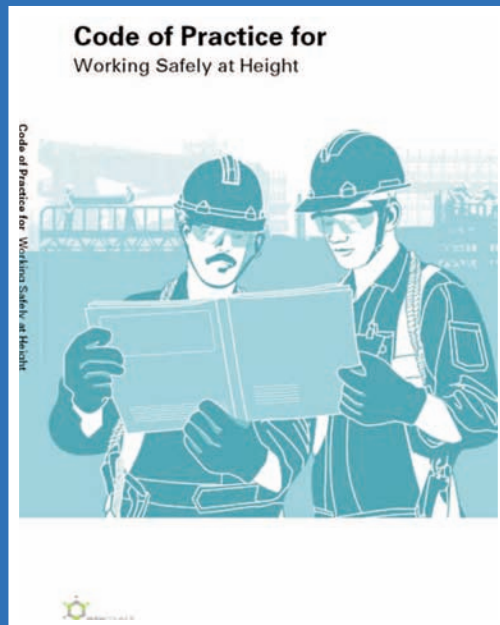
Left: "Show-and-tell" approach to educate workers on the proper usage and wear of fall prevention equipment.



Right: Creating awareness of WAH safety by disseminating educational materials.



Above: MOM inspectors (in blue) carrying out enforcement to identify lapses pertaining to working at heights.



Above: Approved Code of Practice for Working Safely at Height.

also keep proper records of all evaluations and feedback received from participants and follow up on them. Additionally, ATPs must provide support and cooperation to MOM's officers who conduct ad hoc training audits from time to time.

The WSH Council developed the CDA document to assist MOM ATPs with the instructional design and development of a competency-based training course for WSH.

**IPS:** *The National WAH Taskforce plans to fully implement FPPs in worksites and shipyards by 2011. What do FPPs entail?*

**SN:** FPP is a site-specific plan that provides a systematic approach toward eliminating or reducing the risk of falling from height. It does so by ensuring that all reasonable fall prevention measures have been taken prior to the commencement of work. FPP will need to be planned and implemented by supervisors and monitored and reviewed periodically to ensure the plan's relevance and effectiveness. A comprehensive FPP should include:

- a) policy for fall prevention;
- b) role and responsibilities of personnel at workplaces;
- c) hazard identification and risk assessment;
- d) control measures undertaken to address WAH risks;
- e) develop and implement safe work procedures;
- f) ensure that workers are fully equipped with personal fall prevention equipment;
- g) inspection and maintenance;
- h) training of personnel involving WAH;
- i) incident investigations;
- j) emergency preparedness.

**IPS:** *Has MOM and the National WAH Taskforce seen any improvements in workplace safety since conducting inspections and compliance sites visits and releasing the training course?*

**SN:** The strategic enforcement and engagement efforts conducted have indeed raised awareness and

safety standards for various work-sites inspected. This could be seen as more workplaces inspected are now taking steps to implement FPPs at their workplaces.

One key program, the Safety Assistance Compliance Visits (SCAVs) launched by the taskforce, has garnered good and positive industry feedback.

SCAV is a new, innovative capability-building and intervention tool initiated under the National WAH Taskforce. It involves workplace safety and health professionals who visit smaller construction worksites across the island to reach out, engage and educate industry players on WAH issues. SCAV's objectives are to:

- a) provide on site safety awareness education to supervisors and workers;
- b) create awareness of WAH safety by disseminating educational materials and site demonstration on fall prevention-related PPE usage; and
- c) enhance the standards of WAH-related safety conditions and practices by helping companies identify and rectify safety lapses through professional advice.

Since the program's launch in April 2010, more than 900 visits and follow-up sessions were conducted at these workplaces. Through this effort, more than 3,000 workers and supervisors were briefed and engaged onsite. As a result, there was improvement in these workplaces, especially in the areas of WAH management.

**IPS: How will worksites that were cited for violations be monitored from this point forward?**

**SN:** Companies that demonstrated poor WSH management (such as poor site conditions that result in stop work orders, fatalities and serious accidents) or have accumulated a number of demerit points would typically be considered for entry into the Business Under Surveillance (BUS) program.

The BUS Program is a systemic intervention tool to regulate poor-performing companies to focus on developing and implementing a robust safety and health management system to improve their WSH performance. Companies in this program would

need to develop and commit to a comprehensive and sustainable action plan. The company is held accountable to their proposed action plan and reports the implementation progress on a regular basis to MOM. In addition, inspections will be carried out frequently by MOM inspectors to verify the progress made. The company will exit from the program upon demonstrating significant improvement in its WSH performance and management. ☺

*Suresh Navaratnam's responsibilities focus on regulatory and policy aspects of workplace safety and health, while managing statistical intelligence for developing intervention strategies. Also under his purview lies the responsibility of ensuring corporate governance and oversight for the division's daily functions, inclusive of organizational excellence.*

*A safety professional by training and an ASSE member, Navaratnam has also extensively applied himself in the field of aviation safety, having accumulated more than 25 years and 4,000 hours as a professional aviator. He is a qualified accident investigator and a member of the International Society of Air Safety Investigators and has practiced widely in various aspects of human factors and safety resource management.*

# Volunteer Opportunities

**V**olunteer opportunities within the International Practice Specialty (IPS) will help you sharpen your existing skills, develop new skills in a risk-free environment, expand your horizons, become more motivated and energized about safety, increase your visibility within the profession,



boost self-satisfaction and demonstrate workplace and leadership skills that can be documented on your resume. Please contribute in any capacity that fits into your life and set of demands. If you are interested in volunteering, please contact [IPS](#).