

**OPENING ADDRESS BY MR ZAQY MOHAMAD,
MINISTER OF STATE FOR MANPOWER AND
NATIONAL DEVELOPMENT AT THE 5TH
GLOBAL SUMMIT ON PROCESS SAFETY 2019
ON 22 OCT 2019, 9.20AM**

Mr Shakeel Kadri, Executive Director, Center for Chemical Process Safety (CCPS);

Mr Wim Roels, Chairman, Singapore Chemical Industry Council (SCIC);

Er. Lucas Ng Hong Kiang, Chairman, Organising Committee for the 5th Global Summit on Process Safety;

Distinguished Guests;

Ladies and Gentlemen.

1. Good morning. Singapore is honoured to host this year's Global Summit on Process Safety, jointly organised by the CCPS and SCIC. I am pleased to join all of you today.

2. This Global Summit is one of the initiatives to achieve the CCPS Vision 2020¹ of having various stakeholders take collective actions to achieve process safety excellence. It brings many experienced practitioners together, to network and share advancements in process safety through formal paper presentations and informal discussions.

¹ Vision 2020, established by Centre for Chemical Process Safety (CCPS) in 2012, envisions a future where companies and their leaders value, demonstrate actionable commitment to the competencies, communication, awareness and risk preparedness that prevent, minimize and mitigate all process safety incidents.

3. I am glad to see the good turnout today of more than 300 local, regional and international delegates from the chemical and process industries, regulatory agencies and academia. Your presence here is a clear testimony of your support and commitment to process safety, just like how our tripartite partners have dedicated great efforts to raise Workplace Safety and Health or WSH standards through process safety excellence. Allow me to share more about the process safety landscape in Singapore.

Process Safety Landscape in Singapore

4. The energy and chemicals industry in Singapore is an important pillar of Singapore's economy, accounting for 28.5% of our S\$342 billion manufacturing output and employing more than 25,000 workers in 2018². This industry also ranks among the top 10 globally based on chemical exports³. Jurong Island, located southwest of Singapore, is Singapore's centrepiece for refining, petrochemical and speciality chemicals activities. With an infrastructure that allows for seamless integration among companies, including a network of pipelines and utilities supply, Jurong Island is home to a vibrant portfolio of more than 100 leading oil and chemical companies.

5. Process safety is always the top priority on Jurong Island and in the energy and chemicals industry, as large inventories of chemicals are handled and processed, many of which are hazardous in nature. Although the industry's safety record has fared well against the national average major injury rate of 17.44 in 2018, we saw a rise in the major injuries rate from 8.2 in 2017 to 14.8 per 100,000 workers for this industry last year. We should

² Census of Manufacturing Activities, EDB

³ EDB Webpage

⁴ Workplace Safety and Health Report, National Statistics 2018

take this rise in major injuries rate seriously and aim to do better. Also, any incident involving hazardous chemicals could have dire consequences to workers, workplaces and the community. Process safety is therefore of utmost importance.

WSH 2028 – Deepening WSH Ownership

6. CCPS envisages that leaders in process safety will not only value process safety but also demonstrate actionable commitment to prevent, minimise and mitigate process safety incidents. Singapore shares this similar vision.

7. In April this year, Singapore launched our national WSH 2028 strategies following extensive consultations with our tripartite partners. The WSH 2028 strategies aim to raise Singapore's WSH performance to be among the best in the world, and the three strategies are to Strengthen WSH Ownership, Enhance Focus on Workplace Health and Promote Technology-Enabled WSH.

8. In any industry, strengthening WSH ownership is crucial, especially amongst top management. In fact, we had started the journey of engendering such ownership well before the launch of WSH 2028. This was when Singapore implemented the safety case regime in 2017 following a study mission with our tripartite partners. The regime requires Major Hazard Installations or MHIs to take ownership of the risks in their workplace, by demonstrating to the regulator why and how operations are made safe. Through their Safety Cases, MHIs explain the rationale for the safeguards in place and the means to maintain the robustness of the safeguards, reducing risk levels to as low as reasonably practicable. To prevent major accidents, top management needs to allocate adequate and appropriate

resources so that control measures can be effectively implemented.

9. The safety case regime is a continuous journey in adopting industry best practices and learning from process safety incidents. In this aspect, we applaud the excellent work by the US Chemical Safety Board, or CSB, for sharing major process incidents and issuing useful recommendations. This has helped to build a strong safety culture globally. For example, the CSB issued 26 recommendations following the BP Texas refinery explosion in March 2005, causing multiple casualties. One of the recommendations has led to an industry-wide practice of tracking process safety performance through leading and lagging indicators.

10. Similarly, the Ministry of Manpower introduced legislative changes to the Workplace Safety and Health Act in 2017 for early sharing of learning points from major incidents, even before prosecutorial actions. This allows companies to learn from their peers and take immediate steps to avoid similar incidents in a timely manner.

11. To better support the learning report framework, MOM has just gazetted the WSH (Learning Report) Regulations. This set of Regulations requires the consultation of relevant stakeholders on the draft learning report, prior to publication. The consultation will allow stakeholders to provide their comments and perspectives to the accident within the learning report itself. This learning report framework is new and it is understandable that some of you might have concerns. But we hope that you can focus more on the intention behind the law which is learning from past accident so as to prevent a recurrence.

12. As you can see, we place significant emphasis on deepening WSH ownership and this goes hand in hand with a good safety culture. We want stakeholders to embrace a zero harm mindset and build a robust culture of prevention of workplace injuries and ill-health. A year ago, I officiated the launch of the Jurong Island Vision Zero Cluster, an industry-led initiative to raise WSH standards. Since its formation, 40 committed plant owners have joined the cluster and initiated a series of activities to facilitate the exchange of WSH best practices. I encourage more companies to come on board and create safer and healthier workplaces.

Strengthening Focus on Workplace Health

13. The second WSH 2028 strategy is enhancing focus on workplace health. Workers staying fit and healthy can carry out their duties effectively and safely. Therefore, employers and employees have a shared responsibility towards workplace health. Employers can implement programmes such as fatigue management, health screening, exercise sessions and wellness talks to foster a healthy workforce. Employees should also lend full support to these programmes and take responsibility for their physical and mental well-being.

14. For instance, shift personnel in process and storage terminal operations are involved in a wide range of safety critical tasks. It is crucial to ensure that these personnel stay fit and healthy to perform their roles safely and effectively, with minimum risk to themselves and others. A tripartite guide⁵ on fitness for work has been published to provide guidance on how

⁵ The tripartite guide on Fitness for Work can be found on <https://www.mom.gov.sg/-/media/mom/documents/safety-health/tripartite-guide-fitness-for-work.pdf?la=en&hash=95142A818B7A05C808EBD349159EA7B5>

companies in the oil, petrochemical and chemical industries, with support from unions, can implement a fitness for work programme for these workers. I encourage more companies in the energy and chemicals industry to implement the fitness for work programme so that more shift personnel in process and terminal operations can continue to stay fit for the job.

Promoting Technology-Enabled WSH

15. The third strategy of WSH 2028 is the use of technology to improve WSH. The Energy and Chemicals industry is well poised to do so, with several companies already leveraging on technology to create safer workplaces. For instance, plant owners deploy wireless sensors to monitor confined space work continuously in real-time, increasing reliability and reducing risks to workers. Some companies are also employing analytics to predict and identify abnormal operating events.

16. Advancements in knowledge and technology have given rise to more comprehensive risk-based inspection and monitoring methodologies for pressure vessels. This in turn allows companies to apply appropriate risk strategies to safeguard integrity and extend run-cycle of the pressure vessels without compromising safety and reliability. One such example is the Risk-Based Inspection (RBI) Programme.

17. For plant owners with an effective RBI or similar programmes, I am pleased to share that MOM will be making further enhancement to the existing Statutory Pressure Vessel⁶ Extension Scheme. One key revision would be to extend the inspection interval for direct-fired steam boilers from two years, to up to five years. The Extension Scheme is for plant owners

⁶ Statutory pressure vessels comprise steam boilers, steam and air receivers.

who are able to demonstrate strong capabilities in ensuring safe operation and proper monitoring and maintenance of statutory pressure vessels. This revision will allow plant owners to reap productivity savings and exercise more flexibility in managing the downtime of their equipment, without compromising safety outcomes.

18. By supporting our stakeholders in their transformation efforts and aligning business interests closely with WSH, MOM hopes to foster stronger collaborations and a more conducive regulatory environment. We will continue to engage the industry and identify areas where we can readily offer support to promote the culture of risk prevention while meeting business needs.

Conclusion

19. In closing, I would like to express my gratitude to CCPS and SCIC for bringing the Global Summit on Process Safety to Singapore. I am confident that this Summit will raise Process Safety capabilities for all participants and in turn, enhance Process Safety competency in Singapore. I hope that you will also make full use of the Summit to interact with one another and develop fruitful collaborations in the field of Process Safety.

20. On this note, I wish all of you a successful and fruitful Summit. Thank you.