

Local Vessel Advisory Committee

Sub-committee on Class I and Class II Vessels

Local Safety Management System

Purpose

This paper seeks member's views on the proposed Local Safety Management System (LSM) for local vessels. The goal of implementing the LSM is to enhance the safety culture by helping vessel operators manage and operate their vessels.

Background

2. A Safety Management System (SMS) is an organized operation system used by vessel operators to ensure the safety of their vessels, passengers and crew. This system helps operators to identify, assess, and manage potential risks and hazards inherent in maritime operations, fostering a safety-first culture within the organization to avoid accidents.

3. Recent data from the Marine Department (MD) reveals that over the last decade (2013-2023), 366 maritime accidents were recorded and only 39 (approximately 10%) involved equipment, machinery, or fire. The predominant cause of accidents, nearly 90%, stemmed from navigational and operational errors, which strongly indicates that human error is the

main cause of accidents. This highlights a critical and urgent need for initiatives that target these human factors to enhance maritime safety.

4. Following the accident near Lamma Island on October 1, 2012, the "Report of the Commission of Inquiry into the Collision of Vessels" (COI) recommended the implementation of an SMS specifically for passenger vessels carrying more than 100 passengers. This recommendation aims to bolster safety measures for local vessels, mitigating the risk of future accidents through structured management and a persistent emphasis on safety culture and continuous improvement.

5. Through the introduction of the LSM, MD seeks to address these vulnerabilities by promoting better practices to reduce human errors, thereby safeguarding our maritime community.

Benchmarking of International practices

6. The International Safety Management (ISM) Code, established by the International Maritime Organization (IMO) and implemented under the SOLAS Convention, sets essential safety standards for ocean-going ships. The ISM Code was developed in response to the Herald of the Free Enterprise disaster, which highlighted operational failures as a major cause of maritime accidents. This pivotal event underscored the critical need for effective operational management in marine safety.

7. Crucially, the ISM Code emphasizes the need to foster a strong safety culture and pursue continuous improvement within maritime operations. This focus is aimed at ensuring that safety practices are deeply

ingrained in every aspect of maritime operations and that these practices evolve to address new challenges effectively.

8. Research has shown that many maritime administrations, such as the UK, Australia, China, the US and Canada have also recognised the importance of operational safety and have selectively incorporated certain elements from the ISM Code that align with their unique local operating conditions and applied them to their domestic vessels.

9. In consideration of the above, the LSM has been developed primarily based on ISM Code, using a pragmatic approach tailored to meet Hong Kong's unique local needs.

Proposed Local Safety Management System (LSM)

10. The primary objectives of the LSM are to enhance maritime safety, reduce casualties at sea, and foster continuous improvement within the industry. To achieve these objectives, the LSM focuses on promoting a safety culture through education and fostering strong leadership among vessel operators. This dual approach serves as the keystone of the LSM, ensuring that safety practices are deeply integrated and continuously advanced in day-to-day maritime operations.

11. The LSM consists of the following 5 elements:

a. **Safety Policy**

A clearly articulated Safety Policy issued by the top management of the operators, serves as the foundation of an organization's commitment to safety. It sets the expectations and responsibilities for safety at all levels

of the organization, ensuring that safety is properly prioritized. This policy guides the behaviour and decisions of both the crew on board and management ashore, fostering a proactive safety culture.

b. Mechanism to ensure crew are qualified for their jobs

Competent and well-trained crew members are essential for the safe operation of any vessel. By implementing mechanisms to verify qualifications and ensure appropriate training, the LSM ensures that all personnel are capable of performing their duties safely and effectively. This reduces the risk of accidents caused by human error and enhances operational efficiency.

c. Operational Procedures for the vessel

Standardized operational procedures provide clear instructions for daily operations under normal and special circumstances. These procedures help maintain consistency and reliability in operations, hence reducing the likelihood of incidents due to misunderstandings or incorrect practices. They also serve as a reference point for training and performance evaluations and helps new comers to adapt to safe operation effectively.

d. Emergency Procedures for the vessel

Well-defined emergency procedures are crucial for responding effectively to incidents and minimizing their impact. These procedures prepare the crew and parties concerned for potential emergencies, ensuring that they can act quickly and cohesively to mitigate risks to

life and property. Regular drills based on these procedures reinforce skills and improve the crew's readiness to handle real-life contingencies.

e. Mechanism for evaluating the effectiveness of the LSM

Continuous improvement is a cornerstone of effective safety management. By regularly evaluating the effectiveness of the LSM, organizations can identify areas for improvement, learn from incidents, and adapt to changes in operations or regulations. This not only helps in maintaining high safety standards but also enhances the resilience and sustainability of maritime operations.

Implementation of the LSM

12. Under the proposed regime, vessel operators will develop a suitable LSM for each vessel. The LSM shall encompass all functional requirements corresponding to the 5 elements as detailed in above paragraph 11. An LSM manual shall also be in place to document these requirements. MD will provide sample manuals for reference and aid in drafting the LSM manuals for vessel operators. Vessel operators are required to submit their LSM documentation to MD for review prior to implementation. A sample LSM manual is provided in Annex 1 for reference.

13. In addition, vessel operators are required to appoint a safety coordinator for the LSM. The appointed coordinator is tasked with overseeing the implementation of the LSM and conducting annual self-

assessments using a checklist provided by MD. The findings from these assessments must be submitted during the vessel's annual survey.

14. Vessels operated under the LSM regime will have their Certificate of Survey annotated accordingly. Operators who commit to the LSM regime will be formally recognized for their compliance. They will be issued with a recognition certificate, which serves as a testament to their dedication to enhancing safety and operational standards within Hong Kong's maritime sector.

Recognition of other management systems

15. Acknowledging the existence of various well-recognized management systems currently in use, MD will recognize other systems which are equivalent to LSM standards. Having in place a system such as the ISM, Tanker Management Self-Assessment (TMSA), and ISO:9001 certifications, that fulfil the functional requirements corresponding to the five elements detailed in above paragraph 11, will be acknowledged as equivalent to operating under LSM.

Marine Department's Role and Support

16. MD is committed to supporting the vessel operators' implementation and execution of the LSM, this support includes:

- a. Drafting Assistance: Helping companies draft and refine their LSM documentation to meet regulatory standards and operational needs.

- b. Educational Seminars: Conducting regular seminars to educate and update vessel operators on safety practices, new regulations, and effective management strategies.
- c. Customization of Analytical Tools: Creating Risk Assessment and Root Cause Analysis templates that will aid operators in identifying and addressing operational risks.
- d. On-Site Assistance: Providing targeted advice for safety coordinators to enhance their skills in managing safety procedures and overcoming practical challenges, informed by insights gathered from LSM assessments.
- e. Safety Bulletins: Issuing regular updates to share with the trade about new safety initiatives, findings from recent inspections, and emerging issues within maritime safety.

Timetable of Implementing LSM

17. Recognizing the time required for the industry to adapt to a systematic safety management system, MD will adopt a pragmatic and phased approach to the rollout of the LSM regime.

18. In the first phase, the implementation of the LSM will commence with voluntary compliance in Q3 of 2024. This initial phase will specifically target owners/operators of ferries and launches capable of carrying more than 100 passengers and oil carriers. The duration of this voluntary compliance phase will be contingent upon the specific ship type

and the readiness of the owners/operators to integrate and comply with the LSM standards.

19. In the second phase, once the LSM's implementation in the first phase has matured and its efficacy has been established, the MD will escalate the LSM to a mandatory requirement. This requirement will apply specifically to all passenger vessels that can carry more than 100 passengers.

20. In the third phase, following the successful initial implementation, the LSM scheme may be expanded to include all local vessels, enhancing safety and reducing maritime risks for the Hong Kong local vessel trade. Adoption will remain voluntary, promoting broad integration of safety management practices across the local fleet.

21. Building a positive safety culture is a continuous process that requires commitment, communication and collaboration within a company and the trade. This phased approach allows for a gradual adaptation to the LSM, ensuring that all stakeholders are adequately prepared for each stage of implementation.

Public Consultations

22. MD had conducted comprehensive consultations and briefings with vessel operators targeted in phase one of the implementation plan. Participants in these consultations included the MBTA and various individual companies. Feedback from the industry has been

overwhelmingly positive. To date, at least four companies have expressed their commitment to adopting the LSM.

Way Forward

23. Upon obtaining Members' endorsement, this paper will be circulated to the Local Vessel Advisory Committee for further consultation. MD will commence phase one implementation of the LSM regime in Q3 of 2024.

Enclosure: Annex 1 (Sample LSM Manual)

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