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Panel on Environmental Affairs

Meeting on 22 June 2015

**Background brief on marine pollution from oil spillage,
marine littering and floating refuse
prepared by the Legislative Council Secretariat**

Purpose

This paper provides background information on marine pollution from oil spillage, marine littering and floating refuse, and summarizes the major views and concerns expressed by Members when related issues were discussed by the committees of the Legislative Council ("LegCo") in the 2013-2014 and 2014-2015 legislative sessions.

Background

2. With the implementation of the Harbour Area Treatment Scheme to collect and treat sewage generated around the Victoria Harbour, and extension of the sewerage programmes to cover 93% of the population, marine water quality in Hong Kong has been improving since 2002. Overall compliance with the Water Quality Objectives for the Victoria Harbour improved from 50% in 2001 to 77% in 2014. At the same time, the Government has been tackling marine pollution on various fronts, including reducing pollution caused by marine littering and oil spillage.

Marine littering

3. Marine refuse refers to any solid waste, discarded or lost material, resulting from human activities, that has entered the marine environment irrespective of their sources. According to the Administration, more than 95% of marine refuse originates from local sources, with shoreline and recreational activities being the predominant activity type contributing to marine refuse. Refuse sunk to the sea bottom may become seabed waste if they are not decomposed through physical, chemical or biological process.

Oil spillage

4. The Marine Department ("MD") is responsible for dealing with oil pollution incidents in Hong Kong waters. The numbers of oil pollution reports and incidents between 2010 and 2014 are as follows –

Year	2010	2011	2012	2013	2014
Number of oil pollution reports	168	158	136	143	139
Number of oil pollution incidents confirmed and clean-up actions required	66	55	55	36	32

5. According to the Administration, about one-third of the above reported cases were actual oil pollution incidents. The remaining ones were misreported cases unrelated to oil spillage. The actual oil pollution incidents occurred in the past were mainly minor in nature, with the majority of them in the form of oil film. The area affected in general ranged from tens to hundreds of square metres.

Combating marine pollution caused by oil spillage and marine littering

6. A number of regulatory and management control measures are currently in place to combat marine pollution from oil spillage and marine littering in Hong Kong –

- (a) *Merchant Shipping (Local Vessels) Ordinance (Cap. 548)* – prescribes the offence and penalties for discharging oil or mixture containing oil into the waters of Hong Kong. MD is responsible for investigating marine oil spill incidents, and its Pollution Control Unit carries out periodic inspections on bunkering vessels at bunkering anchorages to ensure these vessels complied with their licence conditions on pollution prevention.
- (b) *Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation (Cap. 548D)* – stipulates the requirements for construction vessels such as dredger, hopper barge, dumb lighter, tug, work boat, etc. for carrying out various kinds of marine works in Hong Kong waters for the prevention and control of marine pollution.

- (c) *Merchant Shipping (Prevention of Oil Pollution) Regulations (Cap. 413A)* – implements the requirements for the prevention of pollution by oil from ships as stipulated in Annex I to the International Convention for the Prevention of Pollution from Ships (known as "MARPOL") adopted by the International Maritime Organization ("IMO").
- (d) *Merchant Shipping (Prevention of Garbage) Regulation (Cap. 413J)* – implements the requirements for the prevention of pollution by garbage from ships as stipulated in MARPOL Annex V.
- (e) *Summary Offence Ordinance (Cap. 228)* – provides for the offence and penalties on depositing of litter into the waters of Hong Kong. MD takes enforcement actions against marine littering offenders, and operates a fleet of specialized refuse collection vessels to clean up floating refuse. MD also regularly conducts joint operations with the Food and Environmental Hygiene Department ("FEHD") to clear refuse accumulated at foreshores other than gazetted beaches, whereas floating refuse washed ashore in gazetted beaches and marine parks is separately collected by the Leisure and Cultural Services Department ("LCSD") and Agriculture, Fisheries and Conservation Department ("AFCD") respectively.

Inter-departmental Working Group on Clean Shorelines

7. The Government set up an Inter-departmental Working Group on Clean Shorelines ("the Working Group")¹ in November 2012 to tackle the marine refuse issue through inter-departmental collaboration as well as joint government and community efforts. On 17 April 2015, the Working Group released the Marine Refuse Study Report, which is hyperlinked in the **Appendix**. In gist, the Working Group has identified five key measures for the Working Group members to formulate specific actions: publicity campaigns, education activities, support measures and facilities to reduce refuse entering the marine environment, stepped-up efforts to remove marine refuse, and engaging the public to report marine littering and refuse problems.

¹ The Working Group, which is chaired by the Director of Environmental Protection, includes representatives from AFCD, FEHD, LCSD, MD, Environmental Protection Department ("EPD"), Civil Engineering and Development Department ("CEDD"), Drainage Services Department and Lands Department.

Merchant Shipping (Prevention of Pollution by Garbage) Regulation and Merchant Shipping (Prevention of Pollution by Garbage) Regulation (Repeal) Regulation

8. On 15 April 2015, the Merchant Shipping (Prevention of Pollution by Garbage) Regulation and Merchant Shipping (Prevention of Pollution by Garbage) Regulation (Repeal) Regulation (collectively "the Two Regulations") were introduced into LegCo to enact the latest international requirements governing discharge of garbage from ships as prescribed by IMO². The legislative amendments seek to, inter alia, enhance control by expanding the definition of "Garbage" to include new categories/substances³; and tighten control by prohibiting discharge of additional categories of garbage from ships into waters. The two pieces of subsidiary legislation will come into operation on 1 July 2015.

Major views and concerns expressed by Members

9. Issues relating to marine pollution arising from oil spillage and marine littering were brought up when the Panel on Environmental Affairs ("EA Panel") discussed the subject "Controlling the impact of dumping and dredging activities on the marine environment" at its meeting on 14 June 2013, and during the briefing on the Administration's proposal to carry out a consultancy study to enhance the quality of coastal waters of the Victoria Harbour at the meeting on 24 November 2014.

10. Matters concerning pollution by garbage from ships were discussed by EDEV Panel at the meeting on 16 December 2014, and by the relevant subcommittee of LegCo formed to scrutinize the Two Regulations at its meetings held in April and May 2015. The ensuing paragraphs summarized the major views and concerns raised by Members on related issues.

Discharge from vessels

11. On marine pollution caused by oil spillage, Members stressed the need to ensure that the existing legislation was sufficient for holding ship owners liable for the damages done to the marine environment, and requiring them to take immediate remedial actions.

² The Panel on Economic Development ("EDEV Panel") was consulted on the legislative proposal at its meeting on 16 December 2014.

³ With the revised definition, the scope of "Garbage" will be expanded to include control of categories/substances which are currently not regulated, namely cooking oil, fishing gear made of materials other than plastics, animal carcasses, and cleaning agents and additives contained in cargo hold and external wash water (as part of operational wastes).

12. The Administration advised that ship owners were required to notify MD of any oil spillage incident in Hong Kong waters. Appropriate actions would be taken against the parties responsible for the spillage. Besides, Hong Kong had the responsibility to implement port state control requirements under the Memorandum of Understanding on Port State Control in the Asia Pacific Region. If an ocean-going vessel was in breach of any relevant provisions in the local legislation, MD might detain the vessel or not allow it to proceed to sea until the situation was rectified.

13. Some Members pointed out the persistent problem of refuse accumulation at some black spots including Lap Sap Wan, which was alleged to be caused by littering from vessels in Hong Kong waters. Members urged the Administration to put in place effective measures to tackle the problem and clear the refuse. The Administration advised that MD had conducted site investigation at Lap Sap Wan and could not find any floating refuse in the water areas nearby. Based on the findings of the Marine Refuse Study, the refuse accumulated at Lap Sap Wan should not be mainly caused by discharge from vessels. That said, MD would actively cooperate with other departments concerned and assist in cleaning up the refuse accumulated at Lap Sap Wan and other spots.

14. The Administration further advised that MD had all along been providing free of charge domestic refuse collection service to vessels staying at anchorages and typhoon shelters in Hong Kong waters. MD's contractor also deployed about 70 vessels of different types to perform marine scavenging service on a daily basis from about 0830 hours to about 1800 hours throughout the year. The contractor also operates two foreshore cleansing teams to clean up foreshore areas according to the conditions of individual beaches.

Management of marine refuse at seabed

15. Regarding Members' concerns about management of seabed waste, the Administration explained that removal of seabed refuse was conducted on a need basis. MD would remove submerged objects if found endangering navigational safety in fairways. AFCD cleaned up seabed refuse affecting marine parks and reserve as well as other key coral sites under the program of Hong Kong Reef Check when it became necessary. CEDD removed sediments together with seabed refuse that affected navigational safety during maintenance dredging. In addition, marine works project proponents might be required to carry out seabed dredging including the removal of seabed refuse affecting their marine works.

Enforcement and public education

16. All along, Members had been urging the Administration to step up law enforcement actions against marine pollution. To assess the effectiveness of enforcement actions against marine littering, Members sought information on the details and examples of MD's daily routine duties in respect of enforcement actions against marine littering offenders, as well as its special anti-marine littering operations.

17. The Administration advised that there were currently 25 patrol boats of MD's Harbour Patrol Section performing the duties at various districts including six vessels on round-the-clock patrol duty. The Pollution Control Unit of MD also performed daily patrol in Hong Kong waters to inspect the cleanliness condition of various zones of Hong Kong waters, monitor the contractor's performance according to the sea cleanliness index and conduct enforcement actions against marine littering. Special operations were also carried out by the Unit at marine littering black spots (e.g. promenades and typhoon shelters) regularly, particularly during weekends and public holidays.

18. As regards the suggestion to strengthen publicity and public education against marine littering, the Administration advised that MD had been carrying out continuous publicity and education activities to raise the public's awareness of keeping the sea clean. MD frequently worked with other government departments and non-government organizations to organize promotion activities, such as publicizing the message of keeping typhoon shelters clean to fishermen organizations during the periods of Lunar New Year and fish moratorium.

Co-ordination on water quality matters

19. Since water quality matters cut across different bureaux/departments (B/Ds), some Members were concerned about the coordination of work among B/Ds concerned in enhancing the water quality of the Victoria Harbour. There was a suggestion that, instead of relying on joint operations by government departments or volunteers from green groups to clear the marine refuse accumulated at foreshores and ungazetted beaches, the Administration should assign a designated department to clear marine refuse. The Administration advised it was committed to improving the water quality of the Victoria Harbour and EPD had been playing a co-ordination role for related work.

Recent development

20. The Administration will brief the EA Panel at the meeting on 22 June 2015 about the existing legislative control and response plan in dealing with marine pollution arising from oil spillage; and the existing legislative

control on marine littering, and improvement measures to address the marine refuse problem based on the findings from the Marine Refuse Study.

Relevant papers

21. A list of relevant papers is set out in the **Appendix**.

Council Business Division 1
Legislative Council Secretariat
16 June 2015

Marine pollution from oil spillage, marine littering and floating refuse

List of relevant papers

Council/ Committee	Date of meeting	Paper
Panel on Environmental Affairs	14 June 2013	<p>Administration's paper on "Controlling the impact of dumping and dredging activities on the marine environment" (LC Paper No. CB(1)1269/12-13(03))</p> <p>Background brief prepared by the Legislative Council Secretariat (LC Paper No. CB(1)1269/12-13(04))</p> <p>Minutes of special meeting (LC Paper No. CB(1)1690/12-13)</p>
Panel on Environmental Affairs	24 November 2014	<p>Administration's paper on "5054DP - Further enhancing quality of coastal waters of Victoria Harbour" (LC Paper No. CB(1)245/14-15(05))</p> <p>Background brief on "Improving the water quality of Victoria Harbour" prepared by the Legislative Council Secretariat (LC Paper No. CB(1)245/14-15(06))</p> <p>Minutes of meeting (LC Paper No. CB(1)452/14-15)</p>
Panel on Economic Development	16 December 2014	<p>Administration's paper on "Incorporating in Local Legislation the Latest Standards of the International Maritime Organization" (LC Paper No. CB(4)242/14-15(03))</p> <p>Minutes of meeting (LC Paper No. CB(4)487/14-15)</p>

Council/ Committee	Date of meeting	Paper
<p>Subcommittee on Merchant Shipping (Prevention of Pollution by Garbage) Regulation and Merchant Shipping (Prevention of Pollution by Garbage) Regulation (Repeal) Regulation</p>	<p>27 April, 12 May and 26 May 2015</p>	<p>Legislative Council Brief on Merchant Shipping (Prevention of Pollution by Garbage) Regulation and Merchant Shipping (Prevention of Pollution by Garbage) Regulation (Repeal) Regulation (File Ref: THB(1)PML 8/10/90/8)</p> <p>Letter dated 5 May 2015 from Hon Albert CHAN on the discharge of garbage from a number of ships in the Hong Kong waters (Chinese version only) (LC Paper No. CB(4)931/14-15(01))</p> <p>Administration's letter dated 8 May 2015 in response to the letter from Hon Albert CHAN on the discharge of garbage from a number of ships in the Hong Kong waters (LC Paper No. CB(4)955/14-15(03))</p> <p>Administration's response to issues raised at the meeting on 12 May 2015 (LC Paper No. CB(4)1043/14-15(01))</p>

Hyperlink to relevant document:

Government bureau/department	Document
<p>Inter-departmental Working Group on Clean Shorelines</p>	<p>The report on "Investigation on the Sources and Fates of Marine Refuse in Hong Kong" released on 17 April 2015 http://www.epd.gov.hk/epd/clean_shorelines/sites/default/files/common2015/MarineRefuseStudyReport_ENG_Final.pdf</p> <p>Press release http://www.info.gov.hk/gia/general/201504/17/P201504170495.htm</p>