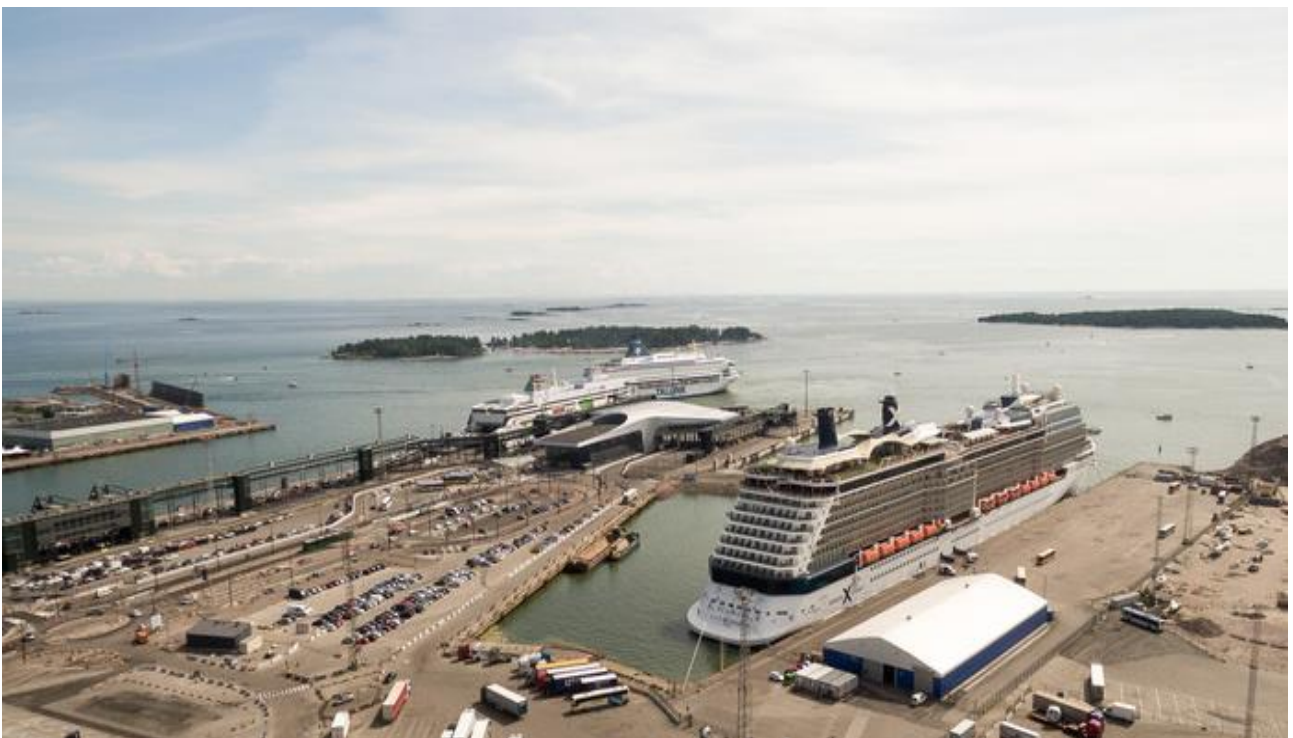


PORT OF HELSINKI LTD

WEST HARBOUR WASTE MANAGEMENT PLAN

18th DECEMBER 2015
(updated 5th July 2019)



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1 Introduction

In accordance with chapter 9 section 3 of the Environmental Protection Act for Seafaring (*Merenkulun ympäristönsuojelulaki 1672/2009*), the port operator must prepare a waste management plan in order to manage the waste that is generated on board ships, i.e. ship-generated waste. The arrangement of ports' waste management is also guided by regulations regarding the operations of ports and general environmental protection and waste management.

A port operator must ensure that the port has the equipment or procedures necessary to receive waste from the ships using the harbour, waste which is to be taken care of by the port operator, as set out in the Environmental Protection Act for Seafaring. These kinds of waste are

- Oily waste (MARPOL Annex I)
- Waste containing harmful liquid substances (MARPOL Annex II)
- Sewage (MARPOL Annex IV)
- Solid waste and cargo waste (MARPOL Annex V)
- Exhaust gas waste, which it is forbidden to discharge into the environment (MARPOL Annex VI)

The duties set out in the harbour's waste management plan, such as the reception, collection, storage, handling and utilisation of waste, must, in the plan, take into account the size and nature of the harbour, and the vessel types using the harbour. The plan must also state that it is necessary that the measures required to implement the waste management are followed, any shortcomings observed are rectified immediately, and that waste management measures are constantly being developed.

The harbour's waste management plan is approved by the Centre for Economic Development, Transport and the Environment (ELY Centre) of the area where the harbour's operations take place. Port of Helsinki (now the Port of Helsinki Ltd) submitted, in accordance with the Environmental Protection Act for Seafaring (1672/2009), the West Harbour Waste Management Plan on 2nd September 2012, for approval by the Uusimaa ELY Centre, and entry into the environmental protection information system. The Uusimaa ELY Centre approved the Waste Management Plan with a letter dated 20th November 2012, Entry No UUDELY/930/07.00/2010. In the future the harbour's waste management plan will be reviewed if the quality, amount or waste management of the waste deposited at the harbour changes significantly. If no need to review the waste management plan arises within three years of its approval, the port operator must submit a notification to the relevant supervisory authority, stating that the waste management plan is still valid.

Due to the permit decrees of the decision on the review of the permit decrees of the environmental permit of the West Harbour, given on 28th March 2014 to the Port of Helsinki by the Regional State Administrative Agency for Southern Finland (No 62/2014/1), the ongoing change underway in the West Harbour area, the change of the Port of Helsinki into a limited company on 1st January 2015 and the personnel changes, the West Harbour Waste Management Plan drawn up in 2012 had to be revised in 2015. This waste management plan replaces the West Harbour Waste Management Plan approved in 2016.

In accordance with chapter 9, section 5 of the Environmental Protection Act for Seafaring, the waste management plan draft was available for consultation and comment on the website of the Port of Helsinki (www.portofhelsinki.fi) for the period of 10th – 24th April 2019. After this the Port of Helsinki submitted the waste management plan to the Uusimaa ELY Centre for approval and entry into the environmental protection information system. The Uusimaa ELY Centre approved the waste management plan with a letter dated 2nd August 2019, Entry No UUDELY/5268/2015.

This waste management plan covers the waste management at the West Harbour of both ship-generated waste and other waste generated by harbour operations that the Port of Helsinki is responsible for. This waste management plan does not cover the waste management for vessels to which the Finnish Transport Safety Agency Traficom has granted an exemption from the mandatory delivery of waste and notification obligation. Nor does this waste management plan cover situations where the shipping company itself, on the basis of an exemption from Traficom, takes care of its waste management with reception equipment located within the closed harbour area managed by the Port of Helsinki, and with a direct waste management agreement with a waste management company.

Vessels operating as regular liner traffic to the West Harbour have been granted an exemption from the mandatory delivery of waste by Traficom, as a result of which around 95% of vessel calls at the West Harbour are covered by Traficom exemptions. The waste management that the Port of Helsinki is responsible for is primarily that of international cruise ships, which account for a small proportion of all vessel calls. With regard to ship-generated waste water, it is noted that the vessels that have received exemptions from Traficom may also dispose of ship-generated waste water into the Port of Helsinki's sewer network, and onwards into Helsinki Region Environmental Services Authority's (HSY) sewer network for no separate charge.

2 The legislative basis of the waste management plan

Organisation of harbours' waste management is guided by the following acts and decrees:

Waste management on a general level

- The Waste Act (646/2011)
- The Government Decree on Waste (179/2012)
- The Environmental Protection Act (527/2014)
- The Environmental Protection Decree (713/2014)

Waste management for vessels and harbours

- The Environmental Protection Act for Seafaring (1672/2009)
- The Government Decree on Environmental Protection for Seafaring (76/2010)

International catering waste

- Regulation (EC) No 1069/2009
- Commission Regulation (EU) No 142/2011
- National animal by-product law 517/2015

Waste management in the Helsinki Metropolitan Area is also guided by HSY's waste management regulations (Common waste management regulations for the Helsinki Metropolitan Area and Kirkkonummi, HSY March 2019, in Finnish).

The primary principle of the legislation is reducing the harmfulness and amount of waste generated. However, if waste is generated, it must in the first instance be prepared for reuse, or in the second instance for recycling. If recycling is not possible, the waste must be utilised in another way, including utilisation as energy. If utilisation is not possible, the waste must be disposed of.

The principle of ship-generated waste management is delivery of the waste ashore for further processing. The vessel is obliged to provide a notification, before arrival in the harbour, of intention to deposit ship-generated waste and cargo waste, and this waste

must be deposited before leaving the harbour. A fee will be charged for ship-generated waste regardless of whether the ship disposes of waste at the harbour or not. The Finnish Transport Safety Agency Traficom may, however, grant an exemption from the mandatory delivery of waste, if the ship is engaging in regular service and it has an agreement with a competent waste management company or the harbour.

According to legislation, the port authority must draw up a waste management plan for the organisation of waste management for waste originating from ships. The structure and content of the harbour's waste management plan are defined in the Government Decree on Environmental Protection for Seafaring (76/2010). The waste management plan must be reviewed as required – however at least every three years – and the draft version must be available for consultation at the port authority's office for at least 14 days during the harbour's operating hours.

3 West Harbour environmental permit

The Regional State Administrative Agency of Southern Finland gave on 28th March 2014 to the Port of Helsinki the decision No 62/2014/1 regarding the review of the West Harbour's environmental permit given on 30th November 2006, decision No 38/2006/2, decrees. The decision was appealed to the Vaasa Administrative Court, but the appeals did not concern the permit decrees given regarding waste management. In connection with the incorporation of the Port of Helsinki, the West Harbour's environmental permit transferred from the City of Helsinki to the management of the Port of Helsinki Ltd from 1st January 2015.

In the case regarding the review of the West Harbour's environmental permit decision decrees the Vaasa Administrative Court gave on 5th February 2016 the decision No 16/0021/2, and the West Harbour's environmental permit became legally valid after the appeal period. The environmental permit concerns the closed harbour area and its operators. Adherence to the environmental permit is monitored as part of the Uusimaa ELY Centre's environment and natural resources area of responsibility.

4 Port operator, persons in charge and contact details

Port operator

Port of Helsinki Ltd
Passenger Harbours Department
Postal address: PO Box 197
FI-00141 HELSINKI, FINLAND
Street address: Satamatalo, Olympiaranta 3
FI-00141 HELSINKI, FINLAND
Telephone: +358 (0)9 310 1621 (switchboard)
E-mail address: port.helsinki@portofhelsinki.fi
Business ID: 2630555-8
VAT number: FI26305558

Persons in charge for waste managementShip-generated waste

Harbour Master Antti Pulkkinen
Telephone: +358 (0)500 600 148
E-mail address: antti.pulkkinen@portofhelsinki.fi

Assistant Harbour Master Petri Janger
Telephone: +358 (0)40 334 6944
E-mail address: petri.janger@portofhelsinki.fi

Waste management officer Jukka Haarni (**during Cruise season**)
Telephone: +358 (0)40 635 4639
E-mail address: jukka.haarni@portofhelsinki.fi

Contact details for the reception of vessel waste service at the Port of Helsinki:
E-mail address: shipservice@portofhelsinki.fi

Property waste

Passenger Traffic Manager Arto Satuli
Telephone: +358 (0)40 354 0916
E-mail address: arto.satuli@portofhelsinki.fi

Renting and contract issues

Area and property coordinator Leena Häkkänen
Telephone: +358 (0)44 774 5974
E-mail address: leena.haekkänen@portofhelsinki.fi

Person in charge of environmental matters

Head of Sustainable Development Andreas Slotte
Telephone: +358 (0)40 162 7595
E-mail address: andreas.slotte@portofhelsinki.fi

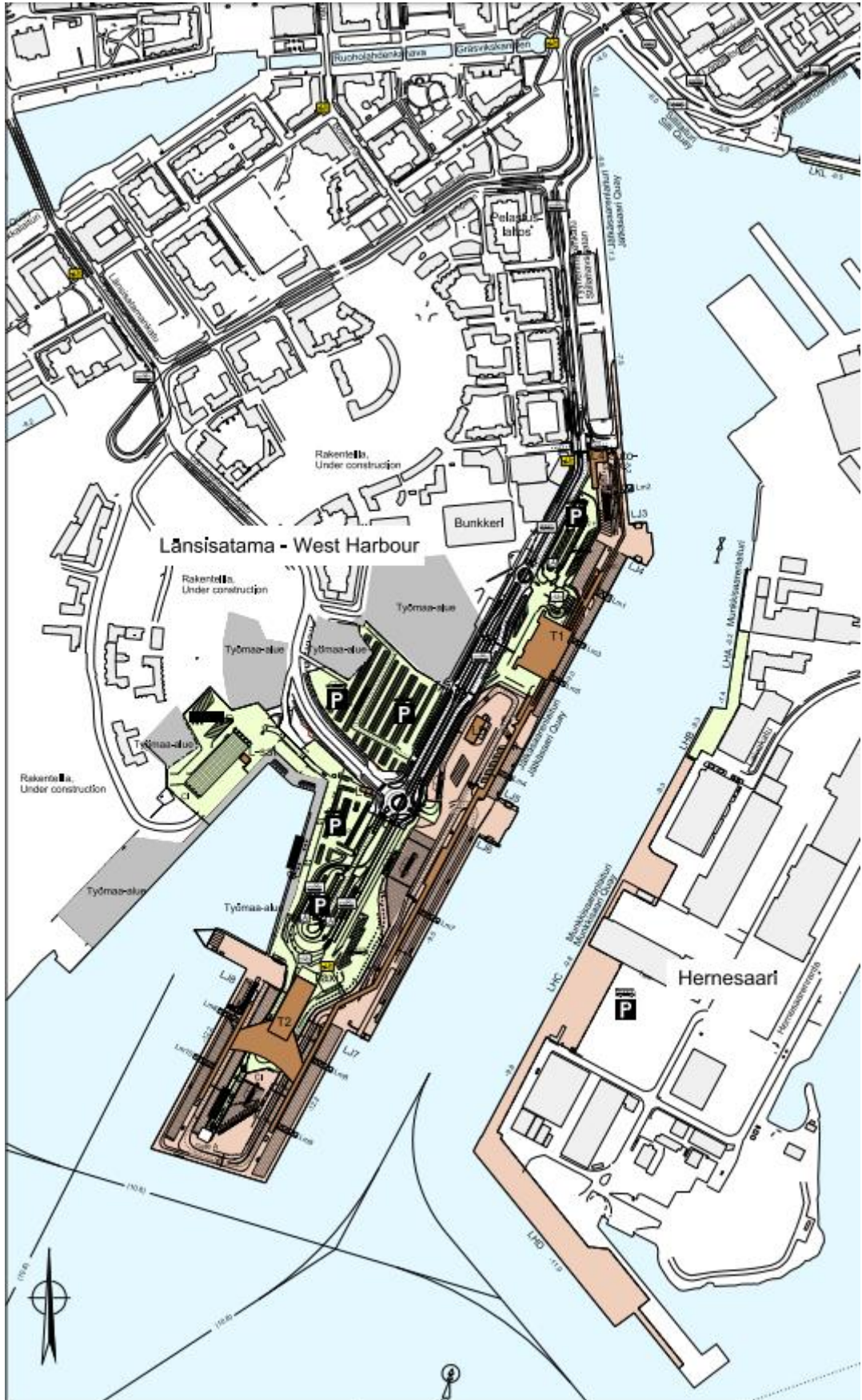
5 General description of the West Harbour

The West Harbour covers the parts of the harbour located in Jätkäsaari and Hernesaari on both sides of Hietalahti, managed and coordinated by the Port of Helsinki Ltd. (picture 1). The Port of Helsinki is responsible for the area's basic infrastructure. The services provided by the Port of Helsinki are the maintenance of the terminal and harbour areas, supplying clean water to ships and receiving ship-generated waste and waste water. Port of Helsinki Ltd is a limited company owned by the City of Helsinki, with the company's board responsible for appropriate organisation of administration and operations.

The West Harbour is specialised in passenger traffic, but in addition to this also serves passenger and car ferries carrying cargo traffic. Traffic from the West Terminal in Jätkäsaari travels primarily to Tallinn, St Petersburg and Stockholm, and the traffic is scheduled, regular liner traffic. The Melkinlaituri quay situated on the Jätkäsaari side currently serves international cruise ship traffic. The quays in the Hernesaari part of the harbour serve primarily international cruise ship traffic.

The Jätkäsaari district is being constructed to the north-west and west of the West Harbour. The city planning of the West Harbour and its surrounds is underway at the time of writing. The harbour arrangements will change with the completion of the land use planning and construction works. West Harbours' new passenger terminal T2 was opened in the beginning of 2017. The Melkinlaituri quay will be taken out of use as the construction of the Jätkäsaari district proceeds. Construction of the new quay in south-west of Hernesaari, which will replace Melkinlaituri and will serve cruise ship traffic by cruise season of 2019.

In 2018 the West Harbour was visited by 3,944 ships, of which 204 were cruise ships (table 1). The harbour has around 10 departures a day. In 2018, 7,635,192 passengers travelled through the West Harbour, and 3,328,896 tonnes of cargo were transported through the harbour. In 2018 all goods traffic going through the West Terminal went through Jätkäsaari. The goods traffic is ro-ro traffic, i.e. goods are transported primarily in trailers, trucks and lorries. There is no processing of containers or bulk cargo at the West Harbour.



Picture 1. The West Harbour in 2019

Table 1. Vessel calls at the West Harbour in 2018.

West Harbour Vessel type	Calls, number	Calls, %
Cruise ships	204	5,17
Passenger ferries	3668	93,00
Dry cargo vessels	43	1,09
Container ships	2	0,05
Other vessels	14	0,35
Tug boats	12	0,30
Barges	1	0,03
Sand ships	0	0,00
Yht.	3944	100,0

The following passenger shipping companies operate at the West Harbour: Tallink Silja Oy, Eckerö Line Ab Oy and MOBY SPL Ltd. Loading and unloading operations are managed by shipping companies and the harbour operator HTG Stevedoring Oy, which is owned by Tallink Silja. In addition to these, customs responsible for checking passengers and cargo, the Finnish border guard, and different companies serving passenger traffic, which are tenants of the Port of Helsinki, operate at the harbour. The terminal services provided by the tenants include storage lockers for suitcases, a restaurant, café, kiosk, ATM, bureau de change, and passenger shipping companies' service points. Support services include cleaning and guarding, which are outsourced.

6 West Harbour waste management plan

6.1 General information

West Harbour Waste Management Plan covers both ship-generated waste and other waste generated by harbour operations. The majority of the ship-generated waste for which the Port of Helsinki is responsible originates from cruise ships. Other waste – in practice, so-called property waste – is generated primarily by the terminal, office and storage buildings in the closed harbour area.

The West Harbour's waste management is based on the size and nature of the harbour, and the kind of ships that use the harbour. The waste management plan takes into account the local waste management regulations and the related procedures (Common waste management regulations for the Helsinki Metropolitan Area and Kirkkonummi, HSY March 2019, in Finnish). The harbour's current waste management arrangements are realised in connection with the companies operating in the West Harbour, taking into account the companies' needs. The harbour's waste management procedures are included in an operating system that is certified according to standards ISO 9001 and ISO 14001, on the basis of which operations are monitored and developed continually. In addition to internal and external audits, the starting point for the development of operations is the feedback received from customers and the development suggestions received from different sources. The Port of Helsinki Ltd.'s passenger harbours department is responsible for the West Harbour's waste management plan.

6.2 Management of ship-generated waste

6.2.1 Waste handling instructions

The Port of Helsinki's instructions regarding ship-generated waste are set out on the Port of Helsinki's website (<https://www.portofhelsinki.fi/en/cargo-traffic-and-ships/instructions/waste-handling-instructions>). This page includes the ship-generated waste notification form, the inadequacy of waste reception facilities form and the IMO's Guide CONSOLIDATED GUIDANCE FOR PORT RECEPTION FACILITY PROVIDERS AND USERS (MEPC.1/Circ.834/Rev.1 1 March 2018). The waste handling instructions and the above-mentioned notification forms are appended to this document as Appendices 1–3.

6.2.2 Procedure

Waste management companies, selected by Port of Helsinki by means of competitive bidding, are responsible for the handling of ship-generated waste. The Port of Helsinki acts as a link between the waste management company and the vessel's representative. The vessel's representative manages the issues relating to the vessel's waste and files the necessary waste notification to the port concerning the vessel's need to hand over waste. The contact person at Port of Helsinki is the Harbour master, Assistant Harbour master or waste management officer, who orders the waste service for the vessel. For those vessels that do not have an exemption from the Finnish Transport Agency Traficom, the procedure for ship-generated waste is as follows:

1. The vessel notifies the representative of its need to leave waste at port.
2. The vessel's representative notifies the port of the vessel's need for waste service no later than 24 hours before arrival at port.
3. Port of Helsinki orders suitable waste transportation vehicles with sufficient capacity from the waste management company.
4. The waste management company ensures that the waste transportation vehicles arrive at the port at the appointed time and receive the waste.
5. The waste is transferred directly from the vessel to the waste transportation vehicle by the vessel's personnel or by the waste management company. Then the waste is transferred for further processing or to an incineration site. Recyclable waste types (metal, cardboard, glass, wooden pallets) are transferred by forklift to the waste containers, which are emptied as required. Plastics are transferred with mixed waste to the energy production plant in Vantaa.
6. The waste management company sends reports to Port of Helsinki regarding the type and the amount of waste that the vessel delivered. The Port of Helsinki sends the vessel, through the representative, a receipt for reception of the waste, when it has received a report from the waste management company on the waste volumes.

6.2.3 Payment system

The waste management fee for vessels covers the reception, handling and disposal of solid and recyclable waste and oily waste from engine rooms. The fees are listed in Port of Helsinki's price list, which is confirmed annually by the company's board, and which can be found on the Port of Helsinki's website (<https://www.portofhelsinki.fi/en/port-helsinki/price-list>).

The fee for solid mixed waste, recyclable waste, and oily waste from engine rooms is independent of the amount of waste delivered. Instead, it depends on the net tonnage of the vessel. For an exceptionally large amount of waste in terms of normal traffic or the

vessel's normal operation, the vessel or shipping company will be charged according to incurred costs. There is no separate charge for discharging conventional domestic waste water into the port's sewer system. If the waste water pumped from a ship is classified as industrial, the charge will be determined separately.

Receipt and handling of other waste discharged from the vessel at the harbour (e.g. waste generated by sulfur oxide scrubbers) will be charged for on the basis of costs generated.

A waste management fee is not charged if the Finnish Transport Safety Agency Traficom has exempted the vessel from the obligatory disposal of oily and solid waste. If an exempted vessel discharges waste at the port, the Port of Helsinki is entitled to deliver the waste for treatment or disposal at the expense of the vessel or the shipping company. There is no separate charge for discharging conventional domestic waste water into the port's sewer system for vessels with exemptions from Traficom or their shipping companies.

In 2016 the Port of Helsinki will be bringing in a ship-generated waste payment system, the aim of which is to encourage cruise ships in particular to dispose of their waste water into the port's sewer network. Vessels carrying mainly passengers are granted a 20% discount on the waste management fee if they discharge their waste waters into the port's sewer network.

6.3 Management of other waste

The waste points located in the West Harbour are monitored constantly. The personnel of the passenger harbours monitor the cleanliness of the harbour area, and report any deficiencies to the passenger traffic or terminal manager, who will then take action regarding the issue at hand. The amount, type, location, or emptying frequency of the waste containers may be adjusted if necessary.

The Port of Helsinki does not preprocess or utilise waste. The contracted waste management company is responsible for the transportation, preprocessing, disposal and reporting of the waste. The waste management company is also responsible for the equipment used in handling vessel waste and its maintenance.

6.4 Waste types and recycling

6.4.1 Ship-generated waste

Waste management companies, selected by Port of Helsinki by means of competitive bidding, are responsible for the handling of oily and solid ship-generated waste. These waste types are primarily transferred directly from vessels into waste transportation vehicles, therefore fixed waste reception equipment is not needed in the harbour. For recyclable waste types (metal, cardboard, glass and wooden pallets) there are waste containers at the quays used by cruise ships: LHB, LHC and LHD (see picture 1). Plastics are transferred with mixed waste to the energy production plant in Vantaa. Sewage discharged by the ships is directed into HSY's sewer network by the Port of Helsinki.

Oily waste from engine rooms

Oily waste, waste oil and sludge produced from the separation of heavy fuel oil are by-products of vessel maintenance. Other oily waste, such as oily rags and filters, is also generated in small amounts.

Port of Helsinki arranges the reception of oily waste for vessels that use the port's waste management service. In such cases, the waste management company transfers the oily waste directly from the vessel into a truck, and delivers the waste to a hazardous waste facility for treatment.

Solid ship-generated waste

Solid ship-generated waste refers to food and household waste generated during typical operation of a vessel from the activities of the crew, personnel and passengers. This kind of waste includes mixed waste, separately sorted paper and cardboard, glass, metal and biowaste. Waste generated on board a vessel is transferred directly into trucks that pick up the waste through the vessel's service doors, or it is transferred by truck to closed boxes reserved for recyclable waste types. Mixed waste is currently transferred to Vantaa Waste-to-Energy Plant to be used as a source of energy. Plastics are transferred with mixed waste to the energy production plant in Vantaa.

Ship waste water

Ship waste water can be divided into black water, or sewage, and grey water. Black water contains human waste and comes primarily from toilets, whereas grey water refers to the leftover water from e.g. washing, sauna and kitchen facilities.

According to the Harbour Regulations of the Port of Helsinki, discharging any waste water into the sea is forbidden in the harbour area. International regulations state that processed sewage may be discharged at a distance of more than three nautical miles (around 5.5 km) from the nearest land – provided that the vessel is equipped with machinery to comminute and disinfect the sewage. Unprocessed sewage may only be discharged at a distance over 12 nautical miles (around 22 km) from the nearest land. Considering the unprocessed black waters IMO has banned discharging them into the Baltic Sea. This regulation is in effect, for new passenger ships, after 1st of June 2019, and for old passenger ships from 1st of June 2021.

Pumping waste water directly into the port's sewer network is possible at all berths at the West Harbour. This network is connected to the HSY sewer network, from where the waste water is then led to HSY's waste water treatment plant in Viikinmäki. Both passenger ships in regular liner traffic as well as a number of cruise ships pump their waste water into the harbour's sewer network.

Hazardous waste

Hazardous waste is waste which is flammable or explosive, infectious, or hazardous to health or the environment. Typical hazardous waste from ships includes different kinds of oily waste, greases, solvents, accumulators, batteries and fluorescent tubes. Hazardous waste is emptied into a truck operated by the waste management company. The vessel's personnel are responsible for transferring the waste into the truck.

International catering waste

A vessel is considered to be in international traffic if it stops at a port outside of the EU along its route. Food waste generated on board such a vessel during the consumption and preparation of food is referred to as international catering waste. All other waste that has been in contact with food or leftovers (wrapping papers, disposable tableware etc.) is also considered international catering waste.

International catering waste can spread diseases in animals and humans. For this reason, international catering waste, according to legislation, must be disposed of by burial in an authorized landfill or by incineration at an approved incineration plant. If catering waste is to be left at the port, the vessel must make a notification to the Port of Helsinki in advance and provide an estimate of the amount of food waste to be delivered. The Port of Helsinki will then book a suitable truck from the waste management company, to transport the waste to the Vantaa Waste-to-Energy plant to be burned. The waste transport company is responsible for the appropriate disinfection of the waste truck after the waste transport. The disinfection does not happen at the port area. ICW is also transported to the Vantaa

waste-to-energy plant during the maintenance of the plant because it is not allowed to tranship international catering waste.

Other

The Port of Helsinki is prepared to receive exhaust gas waste, for which a suitable truck may be ordered from a waste management company. No cargo waste is generated by the traffic at the West Harbour.

6.4.2 Other waste

The Port of Helsinki requires that the enterprises operating in the harbour area take proper care of managing their waste. The Port of Helsinki agrees on the collection of property waste with the waste management company selected through competitive bidding at that time. Property waste is collected in containers and waste bins, the amount, capacity, location, and emptying intervals of which are adjusted when necessary. The amount, location etc. of the property waste reception equipment is adjusted when necessary. The contracted waste management company is responsible for the transportation, preprocessing, disposal and reporting of the waste.

Mixed waste

Mixed waste generated at the harbour is comparable to regular household waste of which the recyclable portions have been sorted out. Mixed waste is currently transferred to Vantaa Waste-to-Energy Plant to be used as a source of energy.

Paper and cardboard

Office paper and printed products are collected at the harbour. Cardboard waste refers to recyclable cardboard, paperboard, and craft paper. In order to be recyclable, paper and cardboard must be clean and dry.

Biowaste

Biowaste is collected from the West Harbour's cafés and restaurants. Biowaste is collected if over 50 kg per week is generated in a property.

Glass

Glass bottles and other mixed-colour glass are collected at the terminals. Glass waste is primarily generated by the café and restaurant operations at the terminals, with the waste in the form of glass bottles, for example.

Plastic

Plastic is not collected separately, it is used to energy production among mixed waste.

Hazardous waste

Hazardous waste generated at the West Harbour mainly consists of electronic waste, fluorescent tubes, used energy saving light bulbs, accumulators, and batteries. Hazardous waste is stored in a locked room in terminal building L4, and the room is emptied when necessary.

Emptying of oil and grease sumps

Waste water from the vehicle customs building (L4A) and the Customs inspection building (L5) is led into the sewer system through an oil sump that prevents oily waste from entering the sewers. The vehicle inspection rooms of the buildings in question also feature sand sumps. The oil and sand sumps are emptied by a drain cleaning company when necessary, but checked annually.

The West Terminal T1's current café-restaurant – Laivalaituri – which is owned by Satarest Oy, only sells products prepared elsewhere (and thus is not a preparatory café-restaurant). The West Terminal T2's café-restaurant owned by Henri Häkkinen Oy. Grease sumps are not necessary as the quality of the water going into the café-restaurant's drains is not, in practice, different to the normal water going into the drains. If necessary, it is possible to lead the restaurant kitchen water into the drain through a grease sump.

Sandy waste

Deposits from the sand sumps of the surface water sewers are cleared of sediment when necessary, although at least twice per year – in spring and late summer. The sand sumps are emptied by a drain cleaning company used by the Port of Helsinki. Port of Helsinki has contracted Stara, the construction service of the city of Helsinki, to spread and collect the gritting sand.

Other

Other waste types, such as wood or metal, may be collected if such waste is generated during repair or construction work, for example. Most often Port of Helsinki requires that the contractor of the work site takes care of the demolition and construction waste themselves.

6.5 Reporting procedures and waste types and amounts in 2017

The waste management contractors who have contracts with the Port of Helsinki report the waste types and amounts collected from the vessels which Port of Helsinki is responsible for and which it empties from the harbour area reception equipment, to the Port of Helsinki. The Port of Helsinki reports this waste information annually in connection with the reporting required by the environmental permit. The waste information is also submitted to the official environmental YLVA service. In addition to the reporting required by the environmental permit, the Port of Helsinki has reported information regarding certain waste batches to the City of Helsinki Environment Centre and the Finnish Port Association.

The ship-generated and other waste types and amounts received in 2018 are presented in Appendix 4. In total, 3,438.6 tonnes of ship-generated waste was received, of which the majority (around 55%) was oily water. The most significant waste types in terms of quantity were burnable mixed waste (around 527 tonnes) and Exhaust gas cleaning residue (347 tonnes) international catering waste (around 338 tonnes). Property waste from other harbour operations totalled 187.4 tonnes, of which around 84% was burnable mixed waste.

In the West Harbour in 2018 total of 202,682 m³ of waste water was received from vessels, of which 61,054 m³ originated from cruise ships.

6.6 Development of waste management

The Port of Helsinki works actively to develop its management of ship-generated wastes. Since 2017 the Port of Helsinki has had a waste management officer during the cruise season to develop port's waste management efficiency and co-operation with ships. The aim of this advice was to attempt to improve factors such as the sorting of recyclable waste types and to reduce the amount of waste ending up as mixed waste. This increases the efficiency and collaboration with cruisers in the Port of Helsinki. The provision of information about waste management and reporting of waste amounts to cruise ship companies has improved. After the end of the cruise season, each cruise ship company was sent a summary letter by vessel call about the waste types and amounts deposited at the Port of Helsinki.

The Port of Helsinki has provided guidance for waste management companies with a service description in connection with the competitive tendering. The functionality of the waste management is evaluated annually after the cruise season, and any needs for development are discussed with the waste management companies.

The Port of Helsinki is aiming to focus its waste management development on the following areas:

1. Preventing the generation of waste
 - maintaining and updating the Port of Helsinki's guidelines
 - web page
 - instructions distributed to tenants
 - instructions distributed to the Port's own staff
 - advice and education targeted at increasing waste generation prevention
 - monitoring and providing information about changes that have occurred in legislation
2. Increasing the efficiency of sorting
 - increasing sorting opportunities as required
 - attempting to reduce the proportion of waste that mixed waste accounts for
 - paying attention to the instructions for and correct use of waste points
3. Decreasing waste costs
 - attempting to reduce the proportion of waste that mixed waste accounts for
 - attempting to optimise emptying times
 - regarding waste bins, moving where possible to front-loading containers, the contents of which are weighed
4. Developing and maintaining the waste management network
 - reviewing the functionality of the waste management plan through internal and external audits
 - developing the organisation of waste management within the organisation
 - monitoring and advising the harbour's operators

Port of Helsinki attempts to promote utilisation of so-called new waste types and actively exploring with waste management companies and other parties the most rational ways to receive and handle waste.

Appendix 1**Waste Handling Instructions**

Oily waste from engine room, black/grey water and solid waste are included in the waste management fee.

Notification

The ship sends a duly completed ship-generated waste notification to the Port of Helsinki no later than 24 hours before the arrival to addresses:
Passenger Harbours: [shipperservice\(at\)portofhelsinki.fi](mailto:shipperservice@portofhelsinki.fi)
Vuosaari Harbour: [supervisor.vuosaari\(at\)portofhelsinki.fi](mailto:supervisor.vuosaari@portofhelsinki.fi)

- If the vessel needs waste reception service on Sunday or Monday, the notification must be sent by 3 pm on the previous Friday.
- If the vessel needs waste reception service on Public Holiday(s) or on the day after that, the notification must be sent by 3 pm on the day before the Public Holiday(s).

Based on the waste notification, the Port of Helsinki will arrange the waste management company to collect the waste.

[The ship-generated waste notification form](#) (PDF, 726 KB)

[Inadequacy of waste reception facilities form](#) (PDF, 796 KB)

[Guide to good practice for port reception facility providers and users](#) (PDF, 431 KB)

Vessel with exemption certificate

If a vessel has an exemption from mandatory delivery of ship-generated waste and from notification of such waste the vessel shall follow the regulation adhere. Exemption certificate has to be applied from maritime authorities.

- Port of Helsinki has to be informed if the vessel has such a certificate.
- contact details of waste service provider shall be found in each waste container if the shipping company has its own waste container at the dock area.
- hazardous waste (bilge oil, solid oily waste, batteries, paint, solvents) has to be stored in container, which is tight, covered, locked and marked. All liquid hazardous waste must be stored in container with raised boundary or with collecting reservoir.
- area has to be kept clean at all times.
- all waste containers has to kept clean at all times

Oily waste from engine room (20 m³ is included in the waste management fee)

Oily waste is discharged from the vessel into a tank lorry. The pumping rate must be a minimum 5 m³/h and the maximum one time volume cannot exceed 40 m³. The vessel must separate bilge water before delivery. Maximum water content is 70 %. Waiting time may not exceed 30 minutes.

Safety instructions for discharging:

- hoses must be in good condition and of sufficient length
- all couplings and tightness of couplings must be checked
- effective communication is established between the vessel and tank lorry

- discharging rate must be agreed on
- emergency procedures agreed on between the vessel and tank lorry
- the driver of tank lorry must remain near the lorry at all times
- absorbent material on site
- no smoking or naked lights on site during the operation at the area

If the spillage occurs the following actions are to be taken:

- cease discharging immediately
- take measures to stop or limit spillage
- notify Helsinki VTS (VHF 71 or tel: +358 (0)20 4485385)
- provide incident report to harbour master

Black/grey water (included in the waste management fee)

Grey and black water is discharged from the vessel directly to the city sewage system. The port's ship service personnel connects the hose at the appointed time. The vessel must use its own pump for discharging and the vessel must have possibilities to flush the hoses after the discharging. Recommended flushing method is pure water. The capacity of sewage system is approximately 80-100m³/hour.

Waste water reception service can be ordered by sending a duly completed ship-generated waste notification to the Port of Helsinki at shipservice@portofhelsinki.fi not later than 24 hours before arrival at port. If the ship needs waste water reception service on a Sunday or a Monday, the notification must be sent by 3 pm on the previous Friday. If the vessel needs waste reception service on Public Holiday(s) or on the day after that, the notification must be sent by 3 pm on the day before the Public Holiday(s).

Safety instructions for discharging:

Before discharging:

- type of the discharging waste water must be agreed on
- discharging volume is to be agreed on
- maximum discharging rate is to be agreed on
- hose flushing method must be agreed on
- all hoses and connections must be checked
- safety and emergency instructions must be agreed on
- readings must be checked
- back flow valve must be tested

After discharging:

- readings must be checked
- hose and lines must be flushed

Solid waste

Solid waste means a household waste and other similar waste generated during the regular ship operation.

Mixed waste (20 m³ included in the waste management fee)

Dimensions (length, width, height) of a waste package may not exceed 1.2 m. Packages should be equipped with labels declaring the content.

The vessel empties its waste into the waste-removal lorry or mixed-waste container on the quay, if there is a small amount of the waste. Waiting time may not exceed 30 minutes.

Sorted waste (20 m³ included in the waste management fee)

Dimensions (length, width, height) of a waste package may not exceed 1.2 m. Packages should be equipped with labels declaring the content.

If sorting has been performed for solid waste, the port must be informed when waste notification is made. Sorted-waste is picked up at the vessel's shell gate at an appointed time.

Sorting instructions

Metal

- tins
- aluminium tins and foil
- metal lids
- crown and screw caps
- soft drink tins

No paint tins, aerosols, batteries or other hazardous waste, cables or tubes

Glass

- empty bottles
- empty jars

No crystal, porcelain, ceramics, window or mirror glass, light bulbs, bottle caps or jarlids.

Cardboard

No paper, wet or dirty cardboard, foliated packs, expanded polystyrene or plastic.

Wooden pallets

No broken pallets.

International catering waste (7 m³ / 5 tonnes is included in the waste management fee)

The EC regulation 1774/2002 classifies any catering waste from means of transport operating internationally as a hazardous waste (class 1), due to the risk of disease and requires special handling. In this context, international traffic refers to all vessels which call on their route in countries outside the EU. "International catering waste" means food waste onboard and any waste, such as wrapping waste and packaging material which has been in contact with food and food waste. Such waste must be sorted separately onboard. If this catering waste is mixed with other waste, all waste must be handled as class 1 international catering waste according to the regulation. All ships calling outside of EU during the voyage and wanting to deliver international catering waste to the port of Helsinki must make a notification no later than 24 hours before the arrival (notification exceptions for Sundays, Mondays and Public Holidays are presented in the beginning of these Instructions).

Dimensions (length, width, height) of a waste package may not exceed 1.2 m. Packages should be equipped with labels declaring the content.

The Port of Helsinki will make arrangements for receiving and handling such waste according to the official requirements. Reasonable amount of international catering waste (originating after previous port call) is included in the waste management charge. Waiting time may not exceed 30 minutes.

Other waste categories to be received (Additional charge)

Hazardous waste

Hazardous waste includes batteries, fluorescent tubes, paints, solvents, photographic material, dry cleaning chemicals, medicines and x-ray materials. To deliver hazardous waste to the port of Helsinki, the ship must give a notification of the type and quantity of hazardous waste no later than 24 hours before arrival (notification exceptions for Sundays, Mondays and Public Holidays are presented in the beginning of these Instructions). The Port of Helsinki passes the ship's order to the waste management company and bills the vessel according to actual costs incurred.

Scrap metal

Scrap metal includes metal pipes and cables, wire ropes, taps, fittings, pullers, nails, metal container, furniture hardware, machinery and equipment made of metal. To deliver scrap metal waste to the port of Helsinki, the ship must give a notification of the type and quantity of scrap metal waste no later than 24 hours before the arrival (notification exceptions for Sundays, Mondays and Public Holidays are presented in the beginning of these Instructions). The Port of Helsinki passes the ships order to the waste management company and bills the vessel according to actual costs incurred.

Electrical and electronic waste

Electrical and electronic waste includes discarded information and communication equipment, household appliances, consumer electronics, lighting fixtures, electrical and electronic tools, monitoring and control equipment, vending and slot machines. To deliver electrical and electronic waste to the port of Helsinki, the ship must give a notification of the type and quantity of electrical and electronic waste no later than 24 hours before arrival (notification exceptions for Sundays, Mondays and Public Holidays are presented in the beginning of these Instructions). The Port of Helsinki passes the ships order to the waste management company and bills the vessel according to actual costs incurred.

Exhaust gas-cleaning system residues

To deliver exhaust gas-cleaning residues to the port of Helsinki, the ship must give a notification of the type and quantity of waste no later than 24 hours before arrival (notification exceptions for Sundays, Mondays and Public Holidays are presented in the beginning of these Instructions). The Port of Helsinki passes the ships order to the waste management company and bills the vessel according to actual costs incurred.

APPENDIX 2

STANDARD FORMAT OF THE ADVANCE NOTIFICATION FORM FOR WASTE DELIVERY TO PORT RECEPTION FACILITIES

Notification of the Delivery of Wastes/Residues to: (enter name of port or terminal)
*The master of a ship should forward the information below to the designated authority at least 24 hours in advance of arrival or upon departure of the previous port if the voyage is less than 24 hours.
 This form should be retained on board the ship along with the appropriate Oil Record Book, Cargo Record Book or Garbage Record Book.*

DELIVERY FROM SHIPS (ANF)

1. SHIP PARTICULARS

1.1 Name of ship:	1.5 Owner or operator:
1.2 IMO number:	1.6 Distinctive number or letters:
1.3 Gross tonnage:	1.7 Flag State:
1.4 Type of ship: <input type="checkbox"/> Oil tanker <input type="checkbox"/> Chemical tanker <input type="checkbox"/> Bulk carrier <input type="checkbox"/> Container <input type="checkbox"/> Other cargo ship <input type="checkbox"/> Passenger ship <input type="checkbox"/> Ro-ro <input type="checkbox"/> Other (specify)	

2. PORT AND VOYAGE PARTICULARS

2.1 Location/Terminal name and POC:	2.6 Last Port where wastes/residues were delivered:
2.2 Arrival Date and Time:	2.7 Date of Last Delivery:
2.3 Departure Date and Time:	2.8 Next Port of Delivery (if known):
2.4 Last Port and Country:	2.9 Person submitting this form is (if other than the master):
2.5 Next Port and Country (if known):	

3. TYPE AND AMOUNT OF WASTES/RESIDUES FOR DISCHARGE TO FACILITY

MARPOL Annex I – Oil	Quantity (m ³)	MARPOL Annex V – Garbage	Quantity (m ³)
Oily bilge water		A. Plastics	
Oily residues (sludge)		B. Food wastes	
Oily tank washings		C. Domestic wastes	
Dirty ballast water		D. Cooking oil	
Scale and sludge from tank cleaning		E. Incinerator ashes	
Other (please specify)		F. Operational wastes	
MARPOL Annex II – NLS	Quantity (m³) /Name¹	G. Animal carcasses	
Category X substance		H. Fishing gear	
Category Y substance		I. E-waste	
Category Z substance		J. Cargo residues (non-HME) ²	
OS – other substances		K. Cargo residues (HME) ²	
MARPOL Annex IV – Sewage	Quantity (m³)	MARPOL Annex VI – Air pollution	Quantity (m³)
		Ozone-depleting substances and equipment containing such substances	
		Exhaust gas-cleaning residues	

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¹ Indicate the proper shipping name of the NLS involved.
² Indicate the proper shipping name of the dry cargo.

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Name of ship:	IMO Number:
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Please state below the approximate amount of wastes/residues remaining on board and the percentage of maximum storage capacity. If delivering all wastes/residues on board at this port please strike through this table and tick the box below. If delivering some or no waste/residue, please complete all columns.

I confirm that I am delivering all the wastes/residues held on board this vessel (as shown on page 1) at this port

Type	Maximum dedicated storage capacity (m ³)	Amount of wastes/residues retained on board (m ³)	Port at which remaining wastes/residues will be delivered (if known)	Estimate amount of wastes/residues to be generated between notification and next port of call (m ³)
MARPOL Annex I – Oil				
Oily bilge water				
Oily residues (sludge)				
Oily tank washings				
Dirty ballast water				
Scale and sludge from tank cleaning				
Other (please specify)				
MARPOL Annex II – NLS³				
Category X substance				
Category Y substance				
Category Z substance				
OS – other substances				
MARPOL Annex IV – Sewage				
Sewage				
MARPOL Annex V – Garbage				
A. Plastics				
B. Food wastes				
C. Domestic wastes				
D. Cooking oil				
E. Incinerator ashes				
F. Operational wastes				
G. Animal carcasses				
H. Fishing gear				
I. E-waste				
J. Cargo residues (non-HME) ⁴				
K. Cargo residues (HME) ⁴				
MARPOL Annex VI – Air pollution				
Ozone-depleting substances and equipment containing such substances				
Exhaust gas-cleaning residues				

Date: Name and Position:

Time: Signature:

³ Indicate the proper shipping name of the NLS involved.

⁴ Indicate the proper shipping name of the dry cargo.

APPENDIX 1

FORMAT FOR REPORTING ALLEGED INADEQUACIES OF PORT RECEPTION FACILITIES¹

The master of a ship having encountered difficulties in discharging waste to reception facilities should forward the information below, together with any supporting documentation, to the Administration of the flag State and, if possible, to the competent Authorities in the port State. The flag State shall notify IMO and the port State of the occurrence. The port State should consider the report and respond appropriately informing IMO and the reporting flag State of the outcome of its investigation.

1 SHIP'S PARTICULARS

- 1.1 Name of ship: _____
- 1.2 Owner or operator: _____
- 1.3 Distinctive number or letters: _____
- 1.4 IMO Number²: _____
- 1.5 Gross tonnage: _____
- 1.6 Port of registry: _____
- 1.7 Flag State³: _____
- 1.8 Type of ship:
 - Oil tanker Chemical tanker Bulk carrier
 - Other cargo ship Passenger ship Other (specify) _____

2 PORT PARTICULARS

- 2.1 Country: _____
- 2.2 Name of port or area: _____
- 2.3 Location/terminal name: _____
(e.g. berth/terminal/jetty)
- 2.4 Name of company operating the reception facility (if applicable): _____
- 2.5 Type of port operation:
 - Unloading port Loading port Shipyard
 - Other (specify) _____
- 2.6 Date of arrival: __/__/__ (dd/mm/yyyy)
- 2.7 Date of occurrence: __/__/__ (dd/mm/yyyy)
- 2.8 Date of departure: __/__/__ (dd/mm/yyyy)

¹ This format was approved by MEPC 53.

² In accordance with the *IMO ship identification number scheme*, adopted by the Organization by Assembly resolution A.1117(30).

³ The name of the State whose flag the ship is entitled to fly.

3 INADEQUACY OF FACILITIES
3.1 Type and amount of wastes/residues for which the port reception facility was inadequate and nature of problems encountered

Type of wastes/residues	Amount for discharge (m ³)	Amount <u>not</u> accepted (m ³)	Problems encountered Indicate the problems encountered by using one or more of the following code letters, as appropriate. A No facility available B Undue delay C Use of facility technically not possible D Inconvenient location E Ships had to shift berth involving delay/cost F Unreasonable charges for use of facilities G Other (please specify in paragraph 3.2)
MARPOL Annex I - related			
Oily bilge water			
Oily residues (sludge)			
Oily tank washings (slops)			
Dirty ballast water			
Scale and sludge from tank cleaning			
Other (please specify)			
MARPOL Annex II – related			
Category of NLS ⁴ residue/water mixture for discharge to facility from tank washings:			
Category X substance			
Category Y substance			
Category Z substance			
MARPOL Annex IV – related			
Sewage			
MARPOL Annex V – related			
A. Plastics			
B. Food wastes			
C. Domestic wastes			
D. Cooking oil			
E. Incinerator ashes			
F. Operational wastes			
G. Animal carcasses			
H. Fishing gear			
I. E-waste			
J. Cargo residues (non-HME) ⁵			
K. Cargo residues (HME) ⁵			
MARPOL Annex VI – related			
Ozone-depleting substances and equipment containing such substances			
Exhaust gas-cleaning residues			

⁴ Indicate, in paragraph 3.2, the proper shipping name of the NLS involved and whether the substance is designated as "solidifying" or "high viscosity" as per MARPOL Annex II, regulation 1, paragraphs 15.1 and 17.1 respectively.

⁵ Indicate the proper shipping name of the dry cargo.

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3.2 Additional information with regard to the problems identified in the above table.

3.3 Did you discuss these problems or report them to the port reception facility?

Yes No

If Yes, with whom (please specify)

If Yes, what was the response of the port reception facility to your concerns?

3.4 Did you give prior notification (in accordance with relevant port requirements) about the ship's requirements for reception facilities?

Yes No Not applicable

If Yes, did you receive confirmation on the availability of reception facilities on arrival?

Yes No

4 ADDITIONAL REMARKS/COMMENTS

Master's signature

Date: __/__/____ (dd/mm/yyyy)

Appendix 4

Types and amounts of ship-generated waste received at West Harbour in 2018

Waste type	Waste class nr	Amount (tn)	Receiver of waste	Waste type nr	R&D code
Burnable mixed waste	200301	526,75	Remeo	1	D10
International catering waste	200108	337,72	Remeo	1	D10
Carboard	150101	100,5	Remeo	1	R12B
Paint and varnish waste	80111	0,26	Remeo	3	D10
Wooden pallets	150103	0,02	Remeo	1	–
Wood	170201	31,16	Remeo	1	D10
Glass	200102	193,62	Remeo	1	R13
Solid oily waste	150202	1,97	Remeo	3	D10
Metal	200140	19,55	Remeo	1	R041
Electrical and electronic waste	160213	0,43	Remeo	3	R4
Solid burnable waste	200135	1,89	Remeo	3	D10
Cooking oil waste	200125	1,22	Remeo	3	R3
Photogr. developer solution	90101	0,2	Remeo	3	D10
Toner cassettes	80317	1	Remeo	3	R5
Exhaust gas cleaning residue	100118	346,73	Fortum	3	D10
Oily waters	130402	1875,58	Fortum	3	R09
Yhteensä		3438,6			

Types and amounts of other waste received at West Harbour in 2018:

Waste type	Waste class nr	Amount (tn)	Receiver of waste	Waste type nr	R&D code
Burnable mixed waste	200301	157,24	Remeo	1	D10
Cardboard	200101	109,89	Remeo	1	R12B
Metal	200140	18,56	Remeo	3	R041
Bio waste	200108	14,31	Remeo	1	R12B
Paper	200101	3,67	Remeo	1	R12B
Glass	200102	197,36	Remeo	1	R13
Fluorescent tubes	200121	0,06	Remeo	3	R05
Wood	170201	31,16	Remeo	1	D10
Total		532,3			