

# **PORT WASTE RECEPTION AND HANDLING PLAN**

The plan is prepared in accordance with:

- The Regulation on Port Reception Facilities for Ship-Generated Waste (Official Gazette of the Republic of Slovenia, No. 50/2023), and
- Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships.

Boštjan Pavlič  
Head of health protection  
and ecology department

Vojko Rotar  
Member of the Management Board -  
Labour director

Koper, November 2023

Company name and address: Luka Koper,d.d.  
Vojkovo nabrežje 38  
6501 Koper

Plan prepared by: Andrej Pučko; Health Protection and Ecology Department

In cooperation with: Vesna Fabjan Bremec; Health Protection and Ecology  
Department  
Franka Cepak; Health Protection and Ecology Department  
Tea Vatovec; Controlling Department  
Matjaž Šmajgl; Controlling Department  
Kristifor Pantelin; Luka Koper INPO, d.o.o.

Date: November 2023

## **TABLE OF CONTENTS**

<b>TABLE OF FIGURES.....</b>	<b>6</b>
<b>1 INTRODUCTION .....</b>	<b>7</b>
<b>2 CONTENT OF PLAN .....</b>	<b>9</b>
<b>2.1 Assessment of the Need for Port Reception Capacity for Waste Collection from Cargo Ships Normally Arriving at the Port .....</b>	<b>9</b>
<b>2.2 Assessment of the Need for Port Reception Capacity for Waste Collection from Passenger Ships .....</b>	<b>17</b>
<b>2.3 Assessment of the Need for Port Reception Capacity for Waste Collection from Larger Military Vessels .....</b>	<b>18</b>
<b>2.4 Description of Types and Capacity of Port Reception Facilities for Waste Collection from Ships.....</b>	<b>20</b>
2.4.1 Ship’s (Bilge) Waste Oils and Oily Waters .....	22
2.4.2 Municipal and Other Non-Hazardous Waste .....	23
2.4.3 Catering waste (category 1).....	25
2.4.4 Cargo Residues .....	26
2.4.5 Municipal wastewater (sewage),.....	26
2.4.6 Other Hazardous Waste .....	27
<b>2.5 Description of Equipment and Procedures for Pre-treatment and Treatment of Specific Waste Streams from Ships in Port Reception Facilities .....</b>	<b>28</b>
<b>2.6 Description of Procedures for Receiving and Collecting Ship-Generated Waste.....</b>	<b>28</b>
<b>2.7 Description of the Fee System .....</b>	<b>32</b>
2.7.1 Description of the Fee System in Compliance with Directive (EU) 2019/883 and the Regulation on Port Reception Facilities for Ship Waste (Official Gazette of the Republic of Slovenia, No. 50/2023).....	32
2.7.2 The amount of compensation to which the port user is entitled due to damage caused by excessive delay in the reception of waste from vessels at the port reception facility, and the conditions under which the port user can claim compensation. ....	33
<b>2.8 Procedures for Reporting Suspected Irregularities in Port Reception Facilities for Ship Waste and Cargo Residues .....</b>	<b>35</b>
<b>2.9 Procedures for Ongoing Consultations with Port Users, Ship Waste Collectors, Terminal Operators, and Other Interested Parties .....</b>	<b>35</b>
<b>2.10 Types and Quantities of Received and Processed Ship Waste .....</b>	<b>36</b>

<b>2.11 Summary of Legislation and Prescribed Rules for the Disposal of Ship Waste and Cargo Residues .....</b>	<b>37</b>
<b>2.12 Formalities for the Delivery and Disposal of Waste .....</b>	<b>39</b>
<b>2.13 Appointment of Person(s) Responsible for Implementing the Ship-Generated Waste Reception and Handling Plan .....</b>	<b>39</b>
<b>2.14 Description of methods for recording the actual use of port reception facilities for waste from vessels. ....</b>	<b>40</b>
<b>2.15 Description of methods for recording the collected waste from vessels ...</b>	<b>40</b>
<b>2.16 Description of Waste and Cargo Residue Handling Procedures in the Port .....</b>	<b>41</b>
<b>3 REFERENCE DATA (ANNEX).....</b>	<b>41</b>

## **TABLE OF TABLES**

Table 1: Technical specifications of the Port .....	8
Table 2: Contact information for Luka Koper, d.d. ....	8
Table 3: Contact information for the waste collector operator .....	8
Table 4: Number of ship arrivals by year (cargo, passenger, and conventional military vessels) .....	10
Table 5: Quantities of ship-generated waste received and disposed annually .....	10
Table 6: Projected quantities and types of hazardous ship-generated waste for the next five-year period .....	12
Table 7: Explanation of the source of hazardous ship-generated waste .....	13
Table 8: Explanation of the origin of municipal waste with hazardous properties generated as a result of the presence of crew and passengers on board a ship .....	13
Table 9: Projected quantities and types of non-hazardous waste from vessels for the next five-year period .....	14
Table 10: Explanation of the origin of non-hazardous waste from vessels.....	14
Table 11: Explanation of the origin of municipal waste generated as a result of the presence of crew and passengers on board .....	15
Table 12: Plan for updating the mobile infrastructure of port reception facilities for the next 5 years.....	15
Table 13: Number of passenger ship arrivals and tourists by year.....	17
Table 14: Types and capacities of port facilities .....	20
Table 15: Detailed list of mobile equipment - for receiving waste from vessels. ....	20
Table 16: Procedures for receiving and collecting ship waste.....	29
Table 17: Average monthly quantities of ship waste received in 2022 .....	37
Table 18: Responsible persons at Luka Koper .....	39
Table 19: Responsible persons at Luka Koper INPO.....	39
Table 20: Port reception facilities.....	40
Table 21: Process flow from waste reception to storage and record-keeping .....	40

## TABLE OF FIGURES

Figure 1: Location of the new Waste Management Centre and the proposed location of the new Bilge Oil Collection Facility .....	16
Figure 2: Floor plan of the new Waste Management Centre .....	17
Figure 3: Passenger Terminal .....	18
Figure 4: Typical military ship.....	19
Figure 5: Spatial layout of facilities for collecting received ship waste.....	21
Figure 6: Bilge Oil Collection Facility and tanker truck for ship bilge oil collection .....	22
Figure 7: Vehicle and vessels for waste collection.....	23
Figure 8: Waste Management Centre at the Port.....	23
Figure 9: Compactor and press container .....	24
Figure 10: Separate waste collection locations at the Waste Management Centre .....	25
Figure 11: Refrigerated container, specialized vehicle, and container for collecting food waste .....	26
Figure 12: Facility for preliminary hazardous waste storage.....	28
Figure 13: Berths where waste is exclusively collected by sea .....	29
Figure 14: Collection of liquid and solid waste from ships from the shore .....	32

## 1 INTRODUCTION

In accordance with the provisions of the Regulation on Port Reception Facilities for Ship-Generated Waste (Official Gazette of the Republic of Slovenia, No. 50/2023) and Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships (hereinafter referred to as Directive (EU) 2019/883), the company Luka Koper, d.d. (as the operator of the port reception facilities in the Port of Koper cargo terminal) is obliged to prepare a Port Waste Reception and Handling Plan. The 2023 Port Waste Reception and Handling Plan replaces the 2021 plan due to changes in the regulation. Waste reception is also carried out at the anchorage.

By signing the concession agreement for performing port activities, managing, developing, and maintaining port infrastructure (No. 2411-08-800011 dated 8 September 2008), Luka Koper, d.d. has been granted exclusive rights to perform port activities related to cargo handling and maritime traffic in the port area. This includes exclusive rights to manage the port and oversee, manage, and develop port infrastructure not intended for public transport.

Until the concession for the national public utility service of collecting waste from vessels in the Port of Koper area is officially granted, Luka Koper, d.d. continues to carry out this activity in compliance with Article 26 of the Regulation on the methods, subject, and conditions for the provision of national public utility service of collecting waste from vessels in the Port of Koper (Official Gazette of the Republic of Slovenia, No. 59/2005), as well as Article 24 of the Regulation on Port Reception Facilities for Ship-Generated Waste (Official Gazette of the Republic of Slovenia, No. 50/2023).

Luka Koper, d.d. has contractually delegated the management of port reception facilities to its subsidiary, Luka Koper INPO, d.o.o. (hereinafter referred to as the waste collector from vessels). As of 1 January 2017, the two companies signed an annex to their contract, specifying that the waste collector from vessels, acting as a fulfilment assistant, has been performing the public utility service of collecting waste from vessels in the Port of Koper on behalf of Luka Koper, d.d.

The activities include the regular collection of waste from vessels, the installation and maintenance of port reception facilities in compliance with relevant regulations, and the receipt of notifications regarding the intention to deliver waste. Additionally, the process involves the segregated collection, sorting, and storage of waste at designated facilities, followed by its transfer for treatment aimed at reuse, recycling, or disposal of residual materials, all in accordance with environmental protection regulations on waste management. Furthermore, the responsibilities include educating the public and users about proper waste delivery methods and management practices.

We submit annual reports on the quantities of waste received from vessels to the ministry responsible for environmental affairs.

Additionally, we submit biannual reports to the ministry responsible for infrastructure, outlining the implementation of the public utility service for collecting vessel waste.

The port operator, Luka Koper, d.d., and its contractual partner, Luka Koper INPO, d.o.o., ensure that personnel involved in handling vessel waste at port reception facilities receive regular training. This training focuses on health and safety considerations, particularly regarding the handling of hazardous materials, and is based on a program that is continuously updated to incorporate advancements in technology.

The port area is defined in the Regulation on the Management of the Port of Koper Cargo Terminal, Performance of Port Activities, and the Granting of the Concession for Managing, Developing, and Maintaining Port Infrastructure in this Port (Official Gazette of the Republic of Slovenia, No. 71/2008 and amendments).

#### Technical Specifications of the Port

*Table 1: Technical Specifications of the Port*

<b>Technical Specifications</b>	<b>Capacity</b>
Total area of the economic zone	3.000.000 m <sup>2</sup>
Enclosed warehouses	518,000 m <sup>2</sup>
Covered storage facilities	47,000 m <sup>2</sup>
Open storage areas	1.111.000 m <sup>2</sup>
Tanks	203,000 m <sup>3</sup>
Silos (storage capacity)	60.000 t
Triangular and flat warehouses	55,000 t
Operational quays length	3,300 m
Length of railway tracks	38 km
Maximum sea depth	18 m
Berths	30

#### Contact information for Luka Koper, d.d.

*Table 2: Contact Information for Luka Koper, d.d.*

<b>Name</b>	<b>Address</b>	<b>Phone</b>	<b>Email</b>
Luka Koper, d.d.	Vojkovo nabrežje 38; 6501 Koper	+ 386 56656100	<a href="mailto:portkoper@luka-kp.si">portkoper@luka-kp.si</a>

#### Contact Information for the Waste Reception Service Provider

*Table 3: Contact Information for the Waste Reception Service Provider*

<b>Name</b>	<b>Address</b>	<b>Phone</b>	<b>Fax</b>	<b>Email</b>
Luka Koper INPO, d.o.o.	Vojkovo nabrežje 38; 6501 Koper	+386 56656762	+386 56656406	<a href="mailto:inpokomunala@luka-kp.si">inpokomunala@luka-kp.si</a>



## 1 CONTENT OF PLAN

The plan is aligned with the requirements set out in Articles 8 and 9, as well as the provisions for waste reception plans specified in Annex 1 of the Regulation on Port Reception Facilities for Ship-Generated Waste (Official Gazette of the Republic of Slovenia, No. 50/2023) and Directive (EU) 2019/883.

The Waste Reception and Handling Plan outlines the port reception facilities for ship-generated waste available at four locations (Figure 5), including the types and sizes of equipment, conditions for their use, and a description of the cost recovery system.

The plan details the procedures for receiving different types and quantities of waste from vessels that typically use the port, taking into account the operational needs of port users, the size and geographic location of the port, and the types of vessels docking at the port. The waste types covered include:

- Municipal wastewater (sewage),
- Waste oils and bilge water (bilge oils and oily water),
- Food by-products generated in ship kitchens,
- Mixed municipal waste,
- Separately collected fractions,
- Hazardous waste,
- Cargo residues.

### ***2.1 Assessment of Port Reception Facility Requirements for Ship-Generated Waste Based on the Needs of Cargo Vessels Regularly Visiting the Port***

For the assessment of the port reception facility requirements for the reception of waste from vessels, based on the needs of the ships, the following facts were taken into consideration:

- Ships typically remain in the port for an average of 2 days, depending on the type of vessel and cargo;
- The disposal of waste and the cost of services also depend on the availability of further waste collectors outside the port area, once the waste has been discharged;
- It is necessary to ensure a 5-day independence from waste collectors who transport the waste out of the port area, as waste is not processed within the Port of Koper;
- The number of ship arrivals at the Port of Koper from 2016 to 2022 was considered (Table 4):

Table 4: Number of Ship Arrivals by Year (Cargo, Passenger, and Conventional Military Vessels)

<b>Ship arrivals</b>							
<b>Year</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Number of ships</b>	2.061	1,999	1,899	1,664	1,433	1,551	1,659

- Based on the current trend, it is expected that the number of ship arrivals will continue to rise over the next three years, with vessels staying longer in the port;
- Legislative changes and anticipated waste volumes for the upcoming five-year period;
- Data on the occupancy of existing port reception facilities;
- The plan for upgrading equipment and infrastructure to accommodate ship-generated waste in the upcoming years;
- The quantity and types of waste received and processed in previous years (Table 5):

Table 5: Quantities of Ship-Generated Waste Received and Disposed of by Year

<b>Quantities of Ship-Generated Waste Received and Disposed annually (tons)</b>									
<b>Convention</b>	<b>Waste No.</b>	<b>Waste Description</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Marpol 73/78, Annex V	I. category	Catering waste	87.67	91.16	141.4	6222	57.92	60.64	116.08
Marpol 73/78, Annex V	08 01 11*	Waste paints and varnishes	/	/	0.366	/	/	/	/
Marpol 73/78, Annex I	13 04 03*	Ship's bilge oils	856,46	890,32	912,29	921,58	691,24	666,67	1.101,86
Marpol 73/78, Annex I	13 05 07*	Oil-contaminated water from oil-water separation systems	295,88	166,24	264,46	280,36	190,56	94,38	39,98
Marpol 73/78, Annex V	15 01 01	Paper and cardboard packaging	3,1	4,05	4,28	4,7	1,7	5,8	4,70
Marpol 73/78, Annex V	15 01 02	Plastic packaging	/	/	/	/	/	/	/
Marpol 73/78, Annex V	15 01 03	Wooden packaging	34,75	34,57	54,3	50,21	68,49	331,20	572,78
Marpol 73/78, Annex V	15 01 04	Metal packaging	65,46	59,52	90,72	92,79	68,98	124,22	106,08
Marpol 73/78, Annex V	15 01 07	Glass packaging	7,8	13,08	42,0	17,4	2,97	/	34,4
Marpol 73/78, Annex V	15 01 10*	Packaging containing residues of hazardous substances	12,39	9,07	5,50	4,33	6,48	5,65	8,64
Marpol 73/78, Annex V	15 02 02*	Oily rags	22,99	24,97	32,02	24,64	33,31	14,61	31,39
Marpol 73/78, Annex V	16 01 07*	Oil filters	/	/	/	/	/	/	0,61
Marpol 73/78, Annex V	16 06 01*	Lead batteries	/	/	/	/	0,93	0,52	1,12
Marpol 73/78, Annex V	19 01 13*	Ash	3,66	4,23	5,14	5,34	3,32	4,82	4,76
Marpol 73/78, Annex V	20 01 21*	Fluorescent tubes with mercury	1,64	0,94	3,13	0,83	0,79	0,82	1,53
Marpol 73/78, Annex V	20 01 27*	Paints, printing inks, adhesives, and resins	/	/	/	/	/	0,24	0,52
Marpol 73/78, Annex V	20 01 32 20 01 31*	Medicines	0,19	0,18	0,18	0,17	0,098	0,22	0,19
Marpol 73/78, Annex V	20 01 34 20 01 33*	Batteries and accumulators	1,16	0,66	2,78	0,62	0,29	0,15	/
Marpol 73/78, Annex V	20 01 36 20 01 35*	Discarded electrical and electronic equipment	3,04	1,25	1,65	0,29	1,69	0,79	1,25

Marpol 73/78, Annex V	20 01 39	Plastic	29,77	23,9	36,44	28,44	18,5	22,58	37,90
Marpol 73/78, Annex V	20 03 01	Mixed municipal waste from ships	187,13	199,82	172,21	117,91	106,82	108,59	121,65
Marpol 73/78, Annex V	20 03 07	Bulky waste	3	7,2	8,44	3,42	9,2	16,29	23,02
Marpol 73/78, Annex IV		Sewage (black water)	/	5	118,0	34,0	20,0	112,20	246,60

*The data in the table is compiled from the annual report on the management of ship-generated waste and cargo residues.*

*/ - no waste was received for disposal*

*\* - hazardous waste*

Stronger collaboration, better communication, increased environmental awareness, and stricter legislation have contributed to a yearly increase in the collection of separately sorted waste (Table 5).

Cargo residues refer to the remains of any cargo on a ship that stay aboard or in the cargo hold or tanks after loading and unloading, including the loading and unloading of residues or spills, either in a wet or dry state or contained in washing water, except for cargo dust that remains on board after cleaning or dust on the ship's external surfaces. Packaging associated with cargo does not constitute cargo residue.

The amount of cargo residues is difficult to predict. Smaller amounts of such waste are often mixed with mixed municipal waste by individual ships.

Ships rarely discharge black water. The demand for discharge of these waters typically arises with military vessels.

Tables 6 and 9 present the expected quantities of hazardous and non-hazardous waste anticipated in the coming years. The projected annual quantities are provided in tons. Some waste types have not yet been accepted, and waste not expected for collection is not included in the list. If a ship wishes to discharge waste not listed, arrangements will be made for its reception, provided an appropriate waste collector can be found in Slovenia within 24 hours.

In the upcoming period, the reception of waste from exhaust gas cleaning systems installed on ships (Marpol Annex VI) is also anticipated. The quantities are currently unknown and difficult to estimate. In 2023, we received 900 kg of this water for the first time. No demand is expected for the reception of wastewater from the cleaning of ship tanks for liquid cargo – slops (Marpol Annex II), as ships typically discharge liquid cargo (petroleum derivatives, chemicals) at the Port of Koper. However, if ships are refilling tanks with petroleum derivatives or chemicals, they must provide a certificate in the port proving the cleanliness of the tanks. This ensures that ships arrive with already cleaned tanks, as stipulated in contracts with business partners. The volume of washing waters can reach up to 400 m<sup>3</sup> per ship. Currently, the port does not have storage capacity for accepting slops (Marpol Annex II) for the reasons mentioned above.

Table 6: Projected Quantities and Types of Hazardous Ship-Generated Waste for the Next Five-Year Period

<b>Class. No.</b>	<b>Waste Description</b>	<b>Projected Annual Collection Quantity for the Next Five Years [tons/year]</b>
I. category	Catering waste from ships	120
08 01 11*	Waste paints and varnishes	1
13 02 08*	Other motor oils, transmission oils, and lubricating oils	1
13 04 03*	Ship (bilge) oils from other maritime traffic	1.200
13 05 06*	Oil from oil-water separation systems	10
13 05 07*	Oil-contaminated water from oil-water separation systems	200
15 01 10*	Packaging containing hazardous residues or contaminated with hazardous substances	20
15 02 02*	Absorbents, filtering materials, cleaning rags, protective clothing contaminated with hazardous substances	40
16 01 07*	Oil filters	1
16 06 01*	Lead batteries	2
16 07 09*	Waste containing other hazardous substances	60
16 10 01*	Wastewater solutions containing hazardous substances (waste from cleaning systems installed on ship exhaust gas outlets)	40
19 01 13*	Ash containing hazardous substances	7
20 01 21*	Fluorescent tubes and other waste containing mercury	3
20 01 27*	Paints, printing inks, adhesives, and resins containing hazardous substances	1
20 01 31*	Cytotoxic and cytostatic drugs	0,5
20 01 33*	Batteries and accumulators listed under 16 06 01, 16 06 02, or 16 06 03, as well as unsorted batteries and accumulators containing these batteries and accumulators	2
20 01 35*	Discarded electrical and electronic equipment containing hazardous substances and not listed under 20 01 21 and 20 01 23	3
	Sewage (black water)	250

\* - hazardous waste

## Explanation of the Source of Hazardous Ship-Generated Waste:

*Table 7: Explanation of the Source of Hazardous Ship-Generated Waste*

<b>Waste No.</b>	<b>Explanation of the Source of Hazardous Ship-Generated Waste</b>
I. category	Catering waste generated in the ship's galley
08 01 11*	Waste paints and varnishes resulting from maintenance work on the ship
13 02 08*	Waste motor, machinery, and lubricating oils generated from the operation of the ship's engine
13 04 03*	Ship bilge oils generated in the engine room
13 05 06*	Waste oil separated on the ship
13 05 07*	Oil-contaminated water separated on the ship
15 01 10*	Packaging left over from materials used for ship maintenance
15 02 02*	Absorbents, filtering materials, cleaning rags, and protective clothing resulting from engine cleaning or spills on board. In case of an emergency spill on the ship, this waste can be significant, so a larger quantity of this waste is expected to be collected.
16 01 07*	Oil filters resulting from various filter changes on the ship's engines
16 06 01*	Lead batteries that are drained on board
16 07 09*	Waste containing other hazardous substances (wastewater generated on the ship)
16 10 01*	Wastewater solutions containing hazardous substances (waste from cleaning systems installed on the ship's exhaust gas outlet) - Scrubber
19 01 13*	Ash containing hazardous substances, generated on the ship during the incineration of mixed municipal waste. Ships with their own incinerators burn and dispose of this waste. This waste is disposed of through a mediator abroad.

\* - *hazardous waste*

## Explanation of the origin of municipal waste with hazardous properties generated as a result of the presence of crew and passengers on board a ship:

*Table 8: Explanation of the origin of municipal waste with hazardous properties generated as a result of the presence of crew and passengers on board a ship*

<b>Waste No.</b>	<b>Explanation of the origin of municipal waste with hazardous properties generated as a result of the presence of crew and passengers on board a ship</b>
20 01 21*	Fluorescent tubes and other waste containing mercury that appear as municipal waste
20 01 27*	Paint, adhesive, and resin residues that appear as municipal waste
20 01 31*	Medicines discarded by crew members or passengers. The quantity can be significant in special cases (e.g., aircraft carriers), but for cargo ships, such waste is minimal.
20 01 33*	Batteries and accumulators drained on board the ship
20 01 35*	Discarded electrical and electronic equipment that appears as municipal waste

\* - *hazardous waste*

*Table 9: Projected quantities and types of non-hazardous waste from vessels for the next five-year period*

<b>Class. No.</b>	<b>Waste Description</b>	<b>Projected Annual Collection Quantity for the Next Five Years [tons/year]</b>
15 01 01	Paper and cardboard packaging	5
15 01 02	Plastic packaging	5
15 01 03	Wooden packaging	600
15 01 04	Metal packaging	120
15 01 07	Glass packaging	25
16 01 17	Ferrous metals	5
16 01 18	Non-ferrous metals	5
19 01 14	Ash not listed under 19 01 13	7
20 01 01	Paper and cardboard	1
20 01 02	Glass	1
20 01 28	Paints, inks, adhesives, and resins not listed under 20 01 33	1
20 01 32	Medicines not listed under 20 01 31	1
20 01 34	Batteries and accumulators not listed under 20 01 33	2
20 01 36	Discarded electrical and electronic equipment not listed under 20 01 21, 20 01 23, and 20 01 35	3
20 01 39	Plastic	45
20 01 40	Metals	1
20 03 01	Mixed municipal waste	150
20 03 07	Bulky waste	20
20 03 99	Other similar municipal waste	1

Explanation of the origin of non-hazardous waste from ships

*Table 10: Explanation of the origin of non-hazardous waste from vessels*

<b>Waste No.</b>	<b>Explanation of the origin of non-hazardous waste from vessels</b>
15 01 01	Paper packaging generated during cargo operations
15 01 02	Plastic packaging generated during cargo operations
15 01 03	Wooden packaging generated during cargo operations
15 01 04	Metal packaging generated during cargo operations
15 01 07	Glass packaging generated during cargo operations
16 01 17	Ferrous metals are waste parts of the ship and its equipment, or remnants of cargo
16 01 18	Non-ferrous metals resulting from cargo remnants, and in special cases, from discarded ship equipment
19 01 14	Ash from incinerated mixed municipal waste that does not contain hazardous substances, generated on ships. It is incinerated and processed by the ships that have their own incinerators.

Explanation of the origin of municipal waste generated as a result of the presence of crew and passengers on board

Table 11: Explanation of the origin of municipal waste generated as a result of the presence of crew and passengers on board

Waste No.	Explanation of the origin of municipal waste generated as a result of the presence of crew and passengers on board
20 01 01	Paper and cardboard discarded as municipal waste
20 01 02	Glass discarded as municipal waste
20 01 28	Paints, printing inks, adhesives, and resins generated from printers and various repairs
20 01 32	Medicines discarded by crew members or passengers. The quantities can be significant in special cases (e.g., aircraft carriers) but minimal on cargo ships. Such waste is handed over to appropriate incineration facilities.
20 01 34	Batteries and accumulators discarded as municipal waste
20 01 36	Discarded electrical and electronic equipment, either as municipal waste or part of discarded ship equipment
20 01 39	Plastics discarded as municipal waste
20 01 40	Metals discarded as municipal waste
20 03 01	Mixed municipal waste
20 03 07	Bulky waste categorized as municipal waste with larger dimensions (larger items)
20 03 99	Other similar municipal waste

Table 12: Plan for upgrading mobile infrastructure for port facilities over the next 5 years

Equipment	Year				
	2024	2025	2026	2027	2028
Tanker truck			X		
Container tank (5 m <sup>3</sup> ) for transporting sewage	X				
Tanker for trucks for transporting sewage					X
Workboat for collecting ship waste	X				
Van for transporting ship waste			X		
Self-loading truck for transporting waste containers with built-in scale and HIAB crane	X				
Waste containers (5–10 m <sup>3</sup> )				X	

- Other equipment will be upgraded progressively based on wear and tear.

In response to requests for the collection of waste from Marpol Annexes I, II, and VI, the company will incorporate this into the port development program as an investment aimed at expanding port capacity. The port development program will be approved by the government.

**In 2025, the following construction projects are planned:**

- A new Waste Management Centre. The centre will be built at a new location within the port (Figure 1) and will cover almost 10,000 m<sup>2</sup>. This area will be used for the temporary storage of various types of waste before it is handed over to authorized waste disposal contractors. The centre will feature state-of-the-art facilities that meet the latest waste management standards (Figure 2). Additionally, the centre will include road infrastructure for weighing waste on cargo vehicles.

**In 2028, the following construction is planned:**

- A new facility for collecting bilge oils, located within the new Waste Management Centre area (Figure 1). This facility will be used for the temporary storage of liquid ship waste. The facility will be more modern and accessible.

*Figure 1: Location of the new Waste Management Centre and the proposed location of the new Bilge Oil Collection Facility*

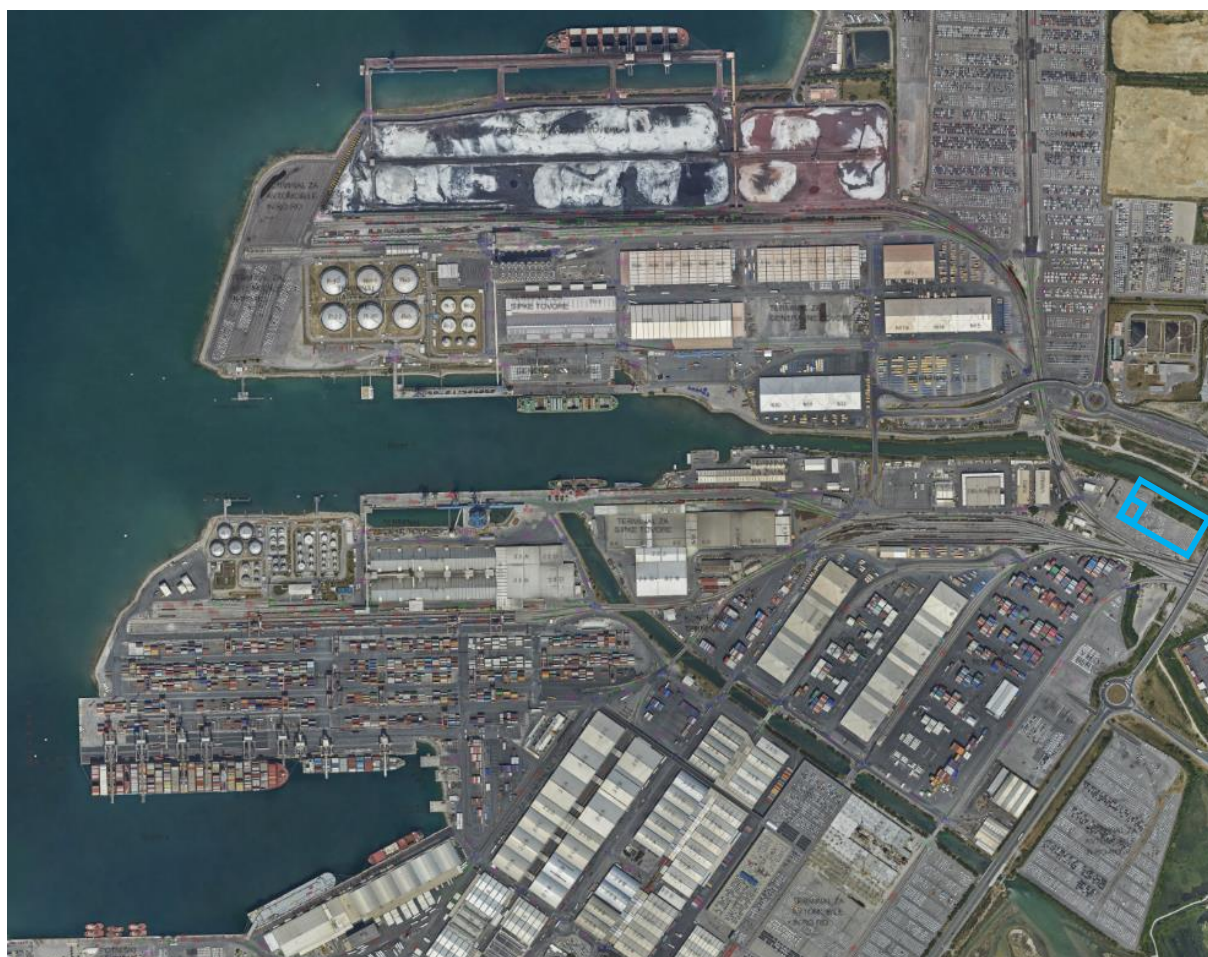
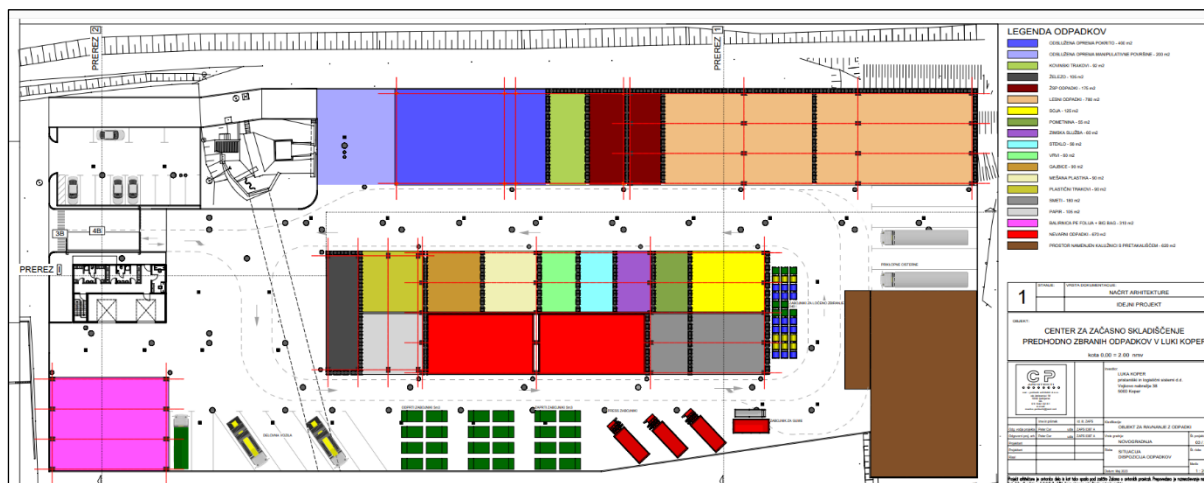




Figure 2: Floor plan of the new Waste Management Centre



## 2.2 Assessment of the Need for Port Reception Capacity for Waste Collection from Passenger Ships

The Koper Passenger Terminal, established in 2005, continues to evolve and expand. Each year, the number of tourists arriving at Koper port via cruise ships steadily increases. The exceptions were in 2020, due to the global crisis and the COVID-19 pandemic, when no cruise ships docked, and in 2021, when only 11 ships arrived. However, by 2022, the situation had stabilized, and the number of ship arrivals has been rising again. Currently, there are 420 meters of operational quay available, capable of accommodating one or more passenger ships, depending on their size.

Table 13: Number of Passenger Ship Arrivals and Tourists by Year

		Number of Passenger Ship Arrivals and Tourists by Year						
Year		2016	2017	2018	2019	2020	2021	2022
Number of arrivals	of	69	68	75	74	0	11	65
Number of tourists	of	78.923	72.175	101.415	115.581	0	4.450	72.753

Figure 3: Passenger Terminal



Bilge oils, sewage, and other waste from passenger ships are collected by the waste collector from the vessels once or multiple times during the ship's stay at the port. The amount of waste from passenger ships represents a smaller portion of the total ship waste, and it is not recorded separately. Instead, its quantity is included in the overall statistics of ship waste.

### **2.3 Assessment of the Need for Port Reception Capacity for Waste Collection from Larger Military Vessels**

Larger military vessels include only aircraft carriers. Regular military ships are of a size that allows them to dock at the port, and waste collection is carried out from the land. These ships discharge slightly larger quantities of waste, but they are typical types of waste as outlined in the previous tables. Bilge oils, sewage, and other waste from regular military vessels are collected daily by the waste collector from the vessels during the ship's stay at the port. The amount of waste from regular military vessels represents a smaller portion of total ship waste and is not recorded separately; instead, its quantity is included in the overall ship waste statistics.

Aircraft carriers, due to their size, cannot dock at the port, so waste collection takes place exclusively at sea (in anchorages). Collection can only occur with the help of specially hired vessels, which Port of Koper does not currently have. The waste collection from aircraft carriers differs from the usual waste collection in terms of the daily quantity, which can be several times higher than the total daily collection from all other docked vessels at the entire port.

The types and quantities of waste from aircraft carriers can typically range as follows:

- Sewage: 800 m<sup>3</sup>/day
- Oily water: 75 m<sup>3</sup>/day
- Municipal waste: 150 m<sup>3</sup>/day

The arrival of an aircraft carrier requires additional preparations for waste collection. For daily collections, external contractors are necessary. External contractors for the continuous collection of waste at the aircraft carrier's anchorage and transportation of waste to the shore in the specified average quantities, as well as disposal to authorized contractors outside the port, have been selected via the dynamic procurement system for public contracting for the next five years. However, a minimum of six months' notice is required prior to arrival.

The last, and only, visit of an aircraft carrier to Koper was in 2003.

*Figure 4: Typical military ship.*



## 2.4 Description of Types and Capacity of Port Reception Facilities for Waste Collection from Ships

Table 14: Types and Capacities of Port Reception Facilities

Waste type	Collection Method	Total Capacity Volume	Limitations from Permit (simultaneously)	Type of Port Reception Facility
Mixed municipal waste	Land / Sea	200 m <sup>3</sup>	1,050 tons**	Waste Management Centre, Containers, Trucks, Vessel
Separately Collected Solid Waste Fractions	Land / Sea	1,800 m <sup>3</sup>		Waste Management Centre - Separate Waste Collection Facility, Containers, Trucks, Vessel
Bilge Oils and Waters	Land / Sea	186 m <sup>3</sup> *	110 tons	Bilge Oil Collection Facility, tank Trucks
Other Hazardous Solid Waste	Land / Sea	335 m <sup>3</sup>	90 tons**	Waste Management Centre - Facility for Preliminary Storage of Hazardous Waste, Containers / Special containers, Trucks
Catering waste	Land / Sea	25 m <sup>3</sup> + 10 m <sup>3</sup>	/	Refrigerated Container, 50L Drums or 600L Covered Containers, Van <sup>1</sup>
Sewage (black water)	Land / Sea	1,000 m <sup>3</sup> /day	Quality Parameters (Section 2.4.5)	Sewage Collector

\* In the process of obtaining permit

\*\* Including other waste generated at the port

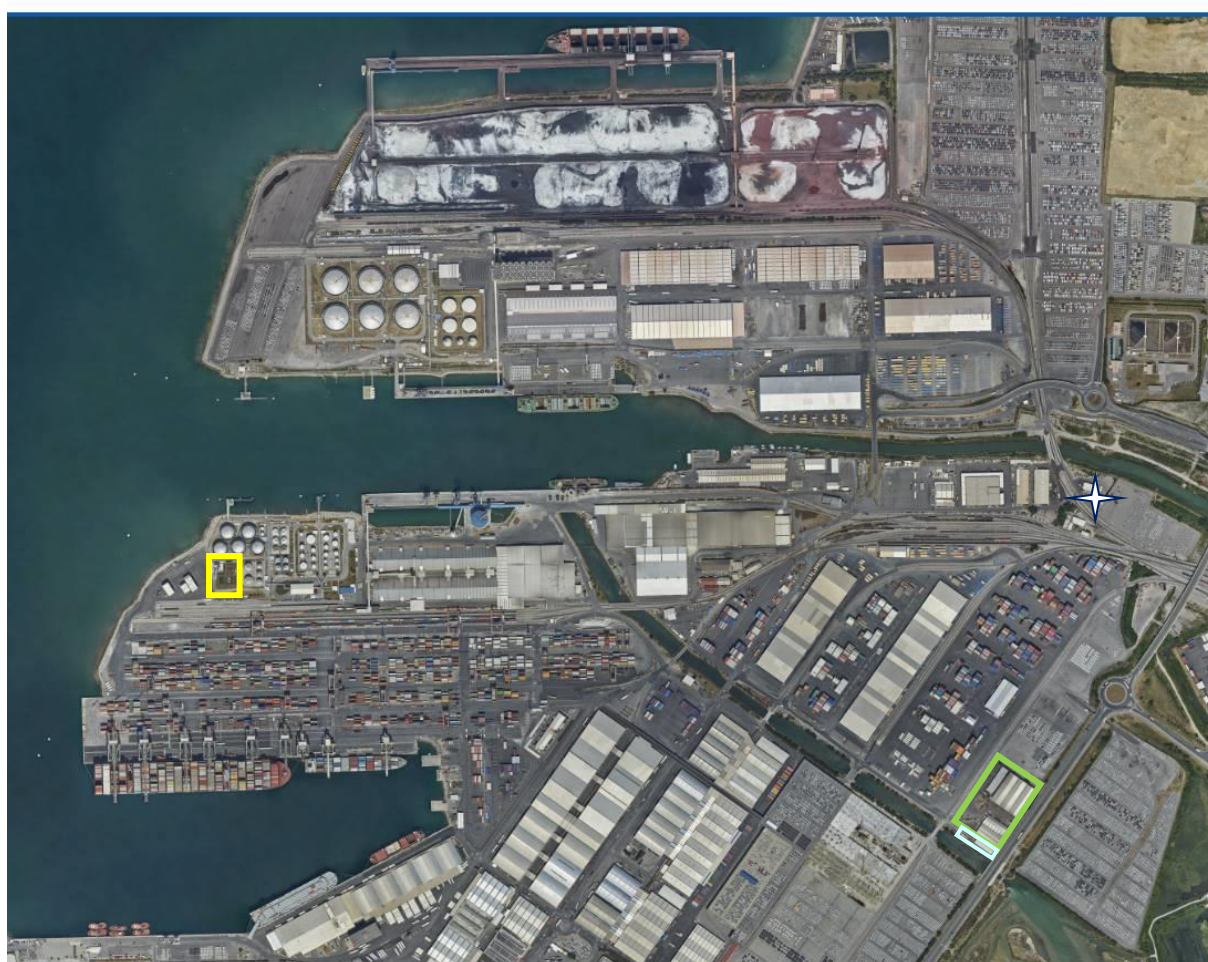
Table 15: Detailed List of Mobile Equipment for Waste Collection from Ships

<b>List of Additional Equipment for Waste Collection from Ships – (May 2023)</b>
IVECO Truck with Tanker
MERCEDES Truck with Tanker
MERCEDES Truck with Fassi Crane
DIECI Samson 65.8 Telescopic Loader
TOYOTA Hilux 2.5 D-4D Vehicle
CITROEN BERLINGO THP 110 Vehicle
TRAFIC FURGON L2H1P2 Cargo Vehicle
Motorboat KP 194 for Solid Waste
Work Boat Hippy 30L for Solid Waste KP 289
Boat for Collecting Solid Waste from Ships
ABSU Container Tanker; 2x
20" Tanker Container; 8x
20" Frigo Container
DORIN AU-180 cc-E Refrigeration Unit

<sup>1</sup> Additional 10 m<sup>3</sup> container for the needs of passenger ships, to be collected directly by the consignee.

PDC 27 ST Semi-Trailer Tanker
20" ZORZI Container Trailer
ITAS SAC 26-10-40 Trailer
Tanker Trailer
Various Pumps; 4x
Open Containers (5m <sup>3</sup> ) for Liquid Waste; 2x
GRS-6.5t Digital Weighing Scale
GPS CHARTPLOTTERS RAYCHART 435
Tarps for Covering Containers
Waste Pharmaceutical Storage Containers; 2x
Waste Containers
Electric Winch with Handle

Figure 5: Spatial layout of facilities for collecting collected ship waste.



Legenda:

- The bilge water collection facility is located at the end of the first pier, on cadastral parcel no. 1608/01, and covers an area of approximately 3,000 m<sup>2</sup>.
- The waste management centre is situated in the immediate vicinity of the Ankaran access road, on cadastral parcels no. 1569/93, 1569/94, 1569/96, and 1569/112, and covers an area of approximately 12,000 m<sup>2</sup>.
- The temporary hazardous waste storage facility is located near the Ankaran access road and the waste management centre. It is situated on cadastral parcel no. 1569/112 and covers an area of approximately 360 m<sup>2</sup>.
- ★ The manhole for discharging sewage water collected from ships is connected to the city's central wastewater treatment plant.

### 2.4.1 Ship's (Bilge) Waste Oils and Oily Waters

The collection of oily liquid ship waste primarily occurs from land, using two tank trucks with a collection capacity of 12 m<sup>3</sup> each. A mobile 5 m<sup>3</sup> tank container is also available, which can be loaded onto a vessel to collect waste at anchor or from ships that are not accessible from land.

The oily liquid ship waste is temporarily stored at the bilge oil collection facility (referred to as the "bilge oil pit"), located near the liquid cargo terminal (*Figure 6*). Temporary storage takes place in tank reservoirs, with a total maximum capacity of 186 m<sup>3</sup>.

Annually, up to 2,500 tons of oily liquid waste can be collected (with a maximum of 110 tons per day). The waste collector vessel is registered under the number 35469-54/2011 and holds an environmental permit under the IED Regulation. All reservoirs are housed in two retention basins that are interconnected, and together they can hold up to 68 m<sup>3</sup> of liquid. Additionally, a concrete transfer station is in place near the basins, preventing potential leaks during filling and emptying of the reservoirs.

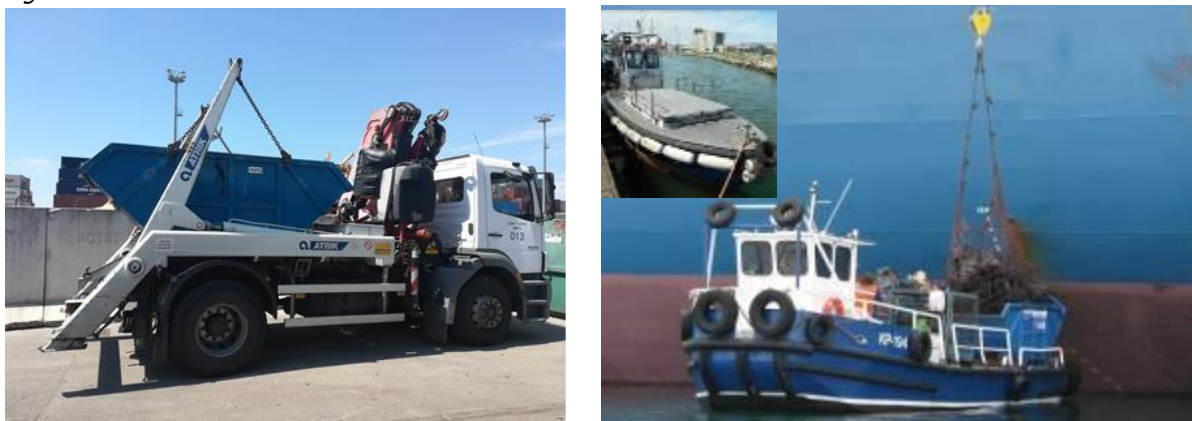
*Figure 6: Bilge Oil Collection Facility and Tanker Truck for Ship Bilge Oil Collection*



## 2.4.2 Municipal and Other Non-Hazardous Waste

Waste collection is performed using two self-loading vehicles and two vessels for transporting open-type metal containers (without lids) with a capacity of 5 m<sup>3</sup>. Municipal waste is collected in bags or on pallets, or in other forms, and transferred into containers on trucks or vessels. The waste is then transported to the port's Waste Management Centre.

*Figure 7: Vehicle and Vessels for Waste Collection*



The Waste Management Centre (Figure 8) covers approximately 12,000 m<sup>2</sup> and is managed by Luka Koper INPO d.o.o., a registered waste collector from ships. The waste collector transports the waste from ships to the centre, where it is sorted and stored until it is handed over to authorized waste management contractors.

*Figure 8: Waste Management Centre at the Port*



The centre is equipped with a compactor for compressing and baling separately collected waste, as well as with press containers (Figure 9). This equipment helps reduce the volume of collected waste, thereby increasing storage capacity.

*Figure 9: Compactor and Press Container*



The collection of waste plastic packaging (class. No. 15 01 02), waste wood (class. No. 03 01 05), wooden packaging (class. No. 15 01 03), paper and cardboard packaging (class. No. 15 01 01) metal packaging (class. No. 15 01 04), ferrous metals (class No. 16 01 17), glass packaging (class. No. 15 01 07) and other mixed municipal waste (class No. 20 03 01), designated locations (boxes) are available at the Waste Management Centre for separate waste collection with a capacity of 1,800 m<sup>3</sup> (Figure 10). If additional waste from ships requires expansion of this facility, it can be enlarged after obtaining a building permit.

*Figure 10: Separate Waste Collection Locations at the Waste Management Centre*





### 2.4.3 Catering Waste (category 1)

To maintain hygienic conditions, food waste is collected in specialized 50- or 600-liter containers designed with advanced sealing systems to prevent the spread of infectious diseases. These sealed containers are then transferred to a combined vehicle or vessel designated for ship-generated waste collection. A 6-meter refrigerated container, located at the facility, stores food waste at an optimal temperature of 4°C (*Figure 11*). Once a sufficient amount is accumulated, or on a weekly basis, the containers are handed over to KOTO, d.o.o., the state contractor responsible for managing slaughterhouse waste and infectious materials of animal origin.

The refrigerated container's capacity exceeds current requirements, ensuring operational independence for up to one week from the final waste processor. An exception applies to passenger ships, where organic catering waste is collected in 5m<sup>3</sup> containers and subsequently transferred into a 10-foot abroll container provided by the public utility service concessionaire for managing slaughterhouse waste and infectious materials of animal origin. For larger or exceptional quantities, services are coordinated with the public utility service concessionaire for managing slaughterhouse waste and infectious materials of animal origin and tailored to the specific needs of the ship.

*Figure 11: Refrigerated container, specialized vehicle, and container for collecting food waste*



### 2.4.4 Cargo Residues

Cargo residues can vary significantly due to the diverse range of cargo types arriving at the Port of Koper. Despite this diversity, the port is equipped to manage such waste effectively.

Typically, these residues may include biological waste resulting from perishable goods, leftovers from other cargoes handled from ships, or sweepings from cleaning ship holds. However, the disposal of cargo residues is relatively rare.

Waste may also arise when the owner decides to destroy the cargo, at which point the cargo is classified as waste. Composting is no longer performed at the Waste

Management Centre within the port but is handled externally, as the port's composting facility is no longer operational.

For example, when dealing with cargo such as sugar, fruits, or vegetables, these may already be in the process of biological degradation or unsuitable for the market. If such cargo is stored in the port's facilities, it must be destroyed, earning the classification code 02 03 04. All received cargo is recorded in the storage inventory of Luka Koper, d.d., meaning that Luka Koper, d.d. is designated as the waste producer. Consequently, this waste is reported and managed as port-generated waste, not ship-generated waste.

For other types of cargo, an appropriate classification code is assigned to the resulting waste.

#### *2.4.5 Municipal Wastewater (Sewage)*

The International Maritime Organization (IMO), under MARPOL 73/78 Annex IV, prescribes conditions under which sewage can be discharged into the sea during voyages.

The collection of sewage from ships is facilitated by a 27 m<sup>3</sup> tanker truck or a 5 m<sup>3</sup> tank container mounted on an appropriate vessel. To date, requests for sewage collection have been minimal, primarily from military ships.

The Koper Central Wastewater, where collected sewage is discharged via a public sewage inlet, requires a preliminary quality analysis. If the sewage exceeds specified thresholds, reception is denied. The capacity for sewage collection depends on the municipal sewage system and can reach up to 1,000 m<sup>3</sup>/day or 40 m<sup>3</sup>/hour.

Maximum allowable concentrations of pollutants in sewage:

- COD (Chemical Oxygen Demand): 900 mg/l;
- Suspended solids: 300 mg/l
- Electrical conductivity: Up to 2,000 µS/cm;
- Coloration: Clear or yellow-brown;
- Odor: Odourless or a mild faecal smell, without hydrocarbon odours;
- pH: Between 6.5 and 9.5

#### *2.4.6 Other Hazardous Waste*

Other hazardous waste includes absorbents, filter materials, oil-soaked rags (class. No. 15 02 02\*), ash (class. No. 19 01 13\*) medicines (class. No. 20 01 31\*), contaminated packaging (class. No. 15 01 10\*), and batteries/accumulators (class. No. 20 01 33\*). These are the most frequently collected items but may also include other uncommon hazardous wastes. The hazardous waste pre-storage facility (*Figure 12*) provides 335

m<sup>3</sup> of space, with a daily capacity of 90 tons. Waste is stored in various collection containers,

such as:

- Oil-soaked rags and ash: 1 m<sup>3</sup> containers;
- Contaminated packaging: Designated containers;
- Medicines: Smaller designated containers;
- Batteries: Special containers specific to this type of waste;
- Accumulators: 0.5 m<sup>3</sup> containers;
- Waste pyrotechnics (not classified as waste): Stored in explosion-proof cabinets.

The collection containers are owned by the ship-generated waste collector. Once a sufficient quantity of waste is gathered, it is handed over to a licensed processor, collector, or recipient for proper handling, ensuring the waste leaves the port. The volume of hazardous waste generated is relatively low, and it is reliably managed within the facility.

*Figure 12: Hazardous Waste Pre-Storage Facility*



## 2.5 Description of Equipment and Procedures for Pre-treatment and Treatment of Specific Waste Streams from Ships in Port Reception Facilities

The equipment and procedures for pre-treatment and treatment of specific waste streams from ships are not part of the plan, as we do not possess the equipment and procedures for the pre-treatment and treatment of such waste streams from ships.

## 2.6 Description of Procedures for Receiving and Collecting Ship-Generated Waste

The process for receiving and collecting waste from ships involves regular collection of waste, transportation, sorting, weighing, and subsequent transfer of waste outside the port. Collected waste is temporarily stored at port facilities, ensuring compliance with legislation, sustainable handling, and avoiding delays to ships. Waste collection is carried out by trucks or specialized vessels. After collection, waste is transported for temporary storage at three locations within the port: the Waste Management Centre, the Bilge Water Collection Facility, and the Hazardous Waste Temporary Storage Facility, depending on the type of waste. Pumped sewage water from ships is discharged directly into a collector connected to a municipal wastewater treatment plant. The transportation to the collector is conducted by truck. Temporarily stored waste is periodically collected by external authorized waste management organizations, depending on the volume.

Luka Koper, d.d. has also developed a comprehensive document defining waste management procedures—OP 36 Waste Management—and detailed instructions outlined in Table 16.

Table 16: Procedures for Receiving and Collecting Ship Waste

<b>Waste type</b>	<b>Collection Method</b>	<b>Internal Procedure Description</b>	<b>Notes</b>
Mixed municipal waste	Land / Sea	Internal Instruction DN 220**	At ship berths: <ul style="list-style-type: none"> <li>• Tanker berth</li> <li>• Alcohol berth</li> <li>• Liquid cargo berth</li> </ul> (collection by sea) Figure 13
Separately Collected Fractions	Land / Sea	Internal Instruction DN 220**	
Ship Bilge Oils	Land / Sea*	Technological Process	
Other Hazardous Waste	Land / Sea	Internal Instruction DN 220**	
Animal By-products (Cat. I)	Land / Sea	HACCP Plan	
Sewage (black water)	Land / Sea*	Internal Instruction DN 220**	

\* Liquid waste collection (bilge oils and sewage water) by sea is limited to 5 m<sup>3</sup> per transport.

\*\* Internal Instruction DN 220 - Conducting state public utility service of ship waste collection at Luka Koper INPO, d.o.o.

Figure 13: Berths where waste is exclusively collected by sea



The reception and removal of waste from ships are defined in three chapters:

- 1.a Chapter: Notification of ship arrivals and waste reception in the port.
- 1.b Chapter: Notification of ship arrivals and waste reception at berth.
2. Chapter: Waste reception and removal during regular working hours.
3. Chapter: Waste reception and removal outside regular working hours.

#### 1.a Chapter: Notification of Ship Arrivals and Waste Reception in the Port

Luka Koper, d.d., conducts regular daily rounds to collect typical types and quantities of solid waste per the collection schedule and the valid Ship Waste Reception and Handling Plan (without prior notification).

For liquid and atypical types and quantities of waste, the agent (shipowner representative) is required to notify the type and quantity of waste intended for disposal 24 hours in advance via email to [inpokomunala@luka-kp.si](mailto:inpokomunala@luka-kp.si). This period allows Luka Koper, d.d., to prepare and organize the collection of waste and cargo residues from the ship.

Orders are processed on weekdays, Monday to Thursday from 7:00 to 15:00, and Fridays and the day before holidays from 7:00 to 12:00. Services can also be provided outside working hours and on weekends by prior agreement.

Luka Koper, d.d. and the agent (shipowner representative) mutually agree in writing on the execution and timing of waste collection.

### 1.b Chapter: Notification of Ship Arrivals and Waste Reception at Berth

Ships can dispose of solid waste and solid cargo residues at port reception facilities while at berth, following the procedures outlined in the valid Ship Waste Reception and Handling Plan. Alternatively, they may dispose of such waste when berthed at the port as per the provisions in 1.a.

For solid waste and cargo residues, the agent must notify the type and quantity of waste 24 hours in advance via email to [inpokomunala@luka-kp.si](mailto:inpokomunala@luka-kp.si). This allows Luka Koper, d.d., sufficient time to prepare and organize waste collection. Aircraft carriers require a six-month prior notification.

Orders are processed on weekdays, Monday to Thursday from 7:00 to 15:00, and Fridays and the day before holidays from 7:00 to 12:00. Services can also be provided outside working hours and on weekends by prior agreement.

Luka Koper, d.d. and the agent (shipowner representative) mutually agree in writing on the execution and timing of waste collection.

### 2. Chapter: Waste reception and removal during regular working hours.

Waste is separately loaded onto vehicles, with each type of waste handled appropriately. After waste collection, ship representatives and Luka Koper representatives confirm the type and quantity of waste using designated forms (OBR 160 and OBR 64). If the ship is inaccessible by land, the process is conducted by a vessel equipped with appropriate 5m<sup>3</sup> containers for solid or 5m<sup>3</sup> container for liquid waste. Waste containers collected from vessels are transferred to vehicles onshore and transported to an appropriate location (Waste Management Centre or a Facility for the Preliminary Storage of Hazardous Waste) within the port, where they are handled appropriately.

Ship bilge oils and sewage are collected based on prior notification (at least 24 hours in advance). The collection of bilge oils is carried out using a tanker truck with a capacity of 12 m<sup>3</sup>, while the collection of sewage is performed using a tanker truck with a capacity of 27 m<sup>3</sup>. On the water side, a 5 m<sup>3</sup> tank container is used. After collection, the bilge oil is transported to a facility for bilge water collection, while untreated sewage is discharged into the municipal sewage system (sewer collector) following a basic quality analysis. The process of collecting liquid ship waste is conducted in accordance with the technological procedure.

Organic catering waste is collected in 50 or 600-liter containers equipped with a specialized sealing mechanism to prevent the spread of infectious diseases. After being collected from the vessel, the waste is loaded onto a combination vehicle (or onto a waste collection vessel if the collection is done from the seaside) and transported to a Waste Management Centre, where it is stored in a refrigerated container in compliance with the HACCP system. An exception applies to passenger ships, where organic catering waste is collected in 5 m<sup>3</sup> containers and subsequently transferred into a 10-foot abroll container provided by the concessionaire KOTO d.o.o.

Mixed municipal waste and sorted plastic waste are collected from ships in black PVC bags and disposed of in a container on a self-loading truck. Paper and cardboard are collected either in bags or tied with string.

Sorted hazardous waste is placed in suitable packaging and stored in a designated area within the combination vehicle (e.g., batterie and medicines in specialized containers, ash in white cardboard bags, and oily rags in red PVC bags, etc). Larger quantities are occasionally collected in 5 m<sup>3</sup> containers.

If there is any suspicion regarding the type of waste being handed over, it must be inspected in the presence of a ship representative. Before collection, the quantity and type of waste must be determined.

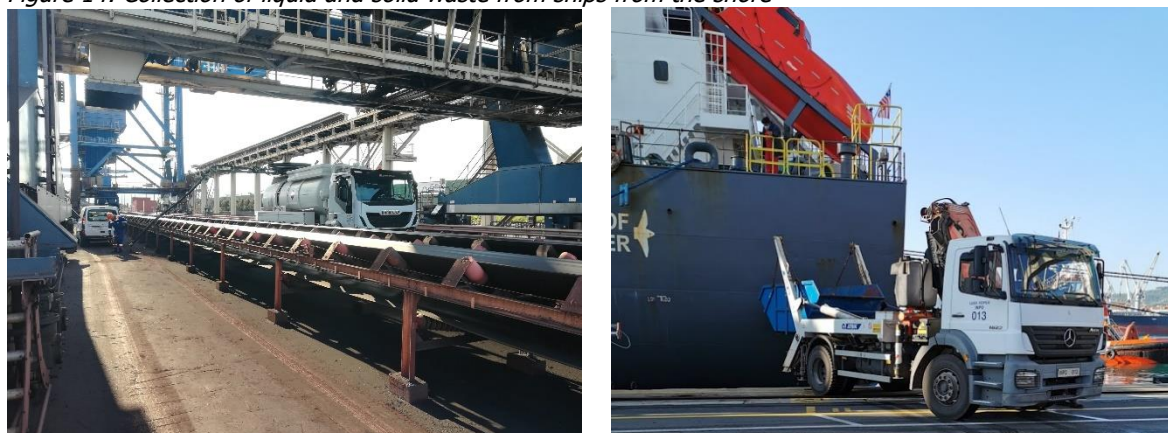
For the collection of solid cargo residues, a waste collector may provide a 5 m<sup>3</sup> container onshore near the ship. Once the work team completes the task or fills the container, the waste collector transports it to the Waste Management Centre, where it is appropriately processed.

If windy weather or the nature of the waste presents a risk of it being dispersed during transport, the use of a protective net is mandatory. The net must cover the entire opening of the container.

### *3. Chapter: Waste reception and removal outside regular working hours*

Outside of regular working hours, waste collection is performed only upon request, with a higher fee applied as specified in the price list.

*Figure 14: Collection of liquid and solid waste from ships from the shore*



## 2.7 **Description of the Fee System**

All procurement, services, or construction activities are conducted through public procurement procedures.

### 2.7.1 Description of the Fee System in Compliance with Directive (EU) 2019/883 and the Regulation on Port Reception Facilities for Ship Waste (Official Gazette of the Republic of Slovenia, No. 50/2023)

Description of the Fee System in Compliance with Directive (EU) 2019/883 and the Regulation on Port Reception Facilities for Ship Waste (Official Gazette of the Republic of Slovenia, No. of the Republic of Slovenia, No. 50/2023). It ensures the funding of waste reception and management activities. A detailed explanation is provided in Appendix 1 (Description of the cost coverage system for the operation of the public utility service of collecting ship waste under the new Directive (EU) 2019/883).

The most significant innovation introduced by Directive (EU) 2019/883 is the promotion of waste submission under Annex V of the MARPOL Convention, excluding cargo residues. This is done by not charging a direct fee for such waste to guarantee the right to submit it without incurring additional costs, regardless of the quantity submitted, unless it exceeds the ship's maximum dedicated storage capacity. Another new feature is a 10% discount on the flat-rate fee for ships with sustainable and environmentally friendly waste management, specifically those holding a Green Award certificate.

### 2.7.2 *The amount of compensation to which the port user is entitled due to damage caused by excessive delay in the reception of waste from vessels at the port reception facility, and the conditions under which the port user can claim compensation.*

Pursuant to the second indent of Article 16(6) of the Regulation on Port Reception Facilities for Ship Waste, the compensation amount and conditions under which port users can claim compensation for damages caused by excessive delays in waste reception are defined.

Luka Koper, d.d. has adequate port reception facilities to meet the needs of ships that typically use the port. The Port Waste Reception and Handling Plan outlines the types and quantities of ship-generated waste and cargo residues typically received at Luka Koper d.d., as well as the submission procedure.

Continuous communication between the ship and Luka Koper d.d. ensures waste reception without causing delays. It is of mutual interest to carry out the reception without delays.



### *Definition of Excessive Delay in Waste Reception*

a) In the Port:

Luka Koper, d.d. performs regular daily rounds for the collection of standard types and quantities of solid waste, following the collection schedule and the Port Waste Reception and Handling Plan (without prior notification).

For liquid and non-standard types and quantities of waste, the agent (shipowner's representative) must notify Luka Koper d.d. 24 hours before the waste reception service to specify the types and quantities of waste intended for submission. This information should be sent to [inpokomunala@luka-kp.si](mailto:inpokomunala@luka-kp.si). This timeframe is necessary for preparing and organizing the waste reception from ships.

Orders are processed on weekdays, Monday to Thursday from 7:00 to 15:00, and Fridays and the day before holidays from 7:00 to 12:00. Services can also be provided outside working hours and on weekends by prior agreement.

Luka Koper, d.d. and the agent (shipowner representative) mutually agree in writing on the execution and timing of waste collection.

b) At berth:

Ships may submit solid waste and cargo residues to port reception facilities while at anchorage as outlined in the Port Waste Reception and Management Plan. Alternatively, they may submit the waste upon docking at the port, following the process described in Section a).

For solid waste and cargo residues, the agent (shipowner's representative) must notify Luka Koper d.d. 24 hours in advance, specifying the waste type and quantity via [inpokomunala@luka-kp.si](mailto:inpokomunala@luka-kp.si). This allows Luka Koper, d.d., to prepare and organize the waste reception from ships.

Orders are processed on weekdays, Monday to Thursday from 7:00 to 15:00, and Fridays and the day before holidays from 7:00 to 12:00. Services can also be provided outside working hours and on weekends by prior agreement.

Luka Koper, d.d. and the agent (shipowner representative) mutually agree in writing on the execution and timing of waste collection.

### *Compensation claims are deemed invalid if:*

- Exceptional weather conditions prevent waste collection.
- The agent fails to place a timely order for waste reception.
- The agent provides incorrect information about waste type and quantity.

- The waste type and quantity exceed typical port standards or the pre-agreed terms.
- The ship prevents waste submission to Luka Koper d.d. at the time of reception.
- The ship has received an official decision from the competent authority about exceeding storage capacity at the next port.
- The ship lacks land access during the regular waste collection round.

### *Compensation Amount*

Ships may file a compensation claim for delays caused during waste reception at Luka Koper d.d. There is no prescribed application form; claims should be sent to [portkoper@luka-kp.si](mailto:portkoper@luka-kp.si) and include the following:

- Waste reception order(s) with submission dates.
- Waste submission confirmation(s), if applicable.
- Records of communication with Luka Koper d.d. regarding waste reception.
- Any other documentation requested by Luka Koper d.d. or other authorities.

Compensation is determined based on the Port Tariff, published at Luka Koper Website <https://www.luka-kp.si/en/services-terminals/tariffs-and-general-terms/>. The amount corresponds to the "ship layover fee" calculated per meter of ship length for each day of delay.

## **2.8 Procedures for Reporting Suspected Irregularities in Port Reception Facilities for Ship Waste and Cargo Residues**

Luka Koper, d.d. is required to act in accordance with the Port Reception Facilities Regulation for Ship Waste (Official Gazette of the Republic of Slovenia, No. 50/2023) and Directive (EU) 2019/883, and to provide adequate port facilities for the reception of ship waste. In case of identified deficiencies in the port reception facilities or shortcomings in the ship waste reception system, the responsible party on the ship or the ship's agent can submit a written remark on the Port Waste Reception Confirmation, or they can file a complaint via email to [portkoper@luka-kp.si](mailto:portkoper@luka-kp.si). Luka Koper, d.d. has established a central system for managing and investigating incidents or "near incidents" and complaints concerning environmental protection and occupational health and safety. Luka Koper INPO, d.o.o. is part of the Luka Koper, d.d.

system in the field of environmental protection under the ISO 14001 system. Anyone at Luka Koper, d.d. or Luka Koper INPO, d.o.o. who receives a complaint regarding environmental protection or occupational health and safety is required to forward it to the health and environmental protection department of Luka Koper, d.d. Every event, near miss, and complaint is recorded electronically in the computer system and is addressed at meetings of this department, with a response sent to the party who submitted the complaint. No complaints have been submitted in the last 5 years.

## **2.9 Procedures for Ongoing Consultations with Port Users, Ship Waste Collectors, Terminal Operators, and Other Interested Parties**

Consultations with all parties involved in ship waste handling are ongoing, as communication is essential for operational needs. The performance of the ship waste collection and reception system is assessed in accordance with the requirements of the ISO 14001 standard and applicable legislation. Internal and external audits, as well as internal and external reviews, include the organizational structure, planning, activities, work techniques, processes, and resources required for the development, implementation, achievement, review, and maintenance of the waste management system within Luka Koper, d.d.'s environmental policy.

Audits are conducted annually. The effectiveness of the system is checked, and any deviations from the prescribed requirements are identified. A report is prepared on the findings, including measures for improvement. The report, along with the measures, is shared with the port management and relevant external authorized institutions assessing the environmental management system. Luka Koper has a contract with the waste collector from ships, outlining the method, subject, and conditions for providing the public utility service of collecting ship waste at the Port of Koper, including an annex specifying mutual rights and obligations, as well as the obligation to report regularly on the services provided. Luka Koper, d.d. also maintains regular communication with ship agents representing users, gathering information from their side. Procedures for ongoing consultations with port users, ship waste collectors, terminal operators, and other interested parties take place at least once a year through meetings, gatherings, social events, and surveys, where comments, suggestions, and opinions are exchanged. Luka Koper, d.d. considers relevant comments, suggestions, and opinions and incorporates them into its operating system through improvement measures.

In November 2023, a meeting was held with agents, the association of agents, the ship waste collector, and representatives of the URSP (Environmental Inspectorate of the Republic of Slovenia) to inform them about the content of the audit of the draft plan for ship waste reception and handling, following the adoption of the new regulation and other ongoing matters.

## 2.10 Types and Quantities of Received and Processed Ship Waste

At the Port of Koper, various types of ship waste are regularly received, including the following:

- Municipal wastewater,
- Waste oils and waters (bilge oils and oily waters),
- Animal by-products generated in ship kitchens,
- Mixed municipal waste,
- Separately collected fractions,
- Hazardous waste,
- Cargo residues.

Separate collection of ship waste at the Port of Koper has been implemented since around 2005. In the early years, ships were required to submit only three types of waste: mixed municipal waste, catering waste, and ship bilge oils.

Over time, enhanced collaboration, improved communication, greater environmental awareness, and stricter regulations have led to a steady increase in the amount of waste being separately collected each year. Table 5 provides an overview of the quantities of waste received from 2016 onwards, while Table 17 presents the average monthly quantities of waste received in 2022.

Table 17: Average Monthly Quantities of Ship Waste Received in 2022

<b>The calculated average quantities of waste received in 2022 on a monthly basis [tons/month]:</b>		
<b>Waste No.</b>	<b>Waste Description</b>	<b>Average</b>
I. category	Catering waste	9,67
13 04 03*	Ship's bilge oils	91,82
13 05 07*	Oil-contaminated water from oil-water separation systems	3,33
15 01 01	Paper and cardboard packaging	0,39
15 01 03	Wooden packaging	47,73
15 01 04	Metal packaging	8,84
15 01 07	Glass packaging	2,87
15 01 10*	Packaging containing residues of hazardous substances	0,72
15 02 02*	Oily rags	2,65
16 01 07*	Oil filters	0,05
16 06 01*	Lead batteries	0,09
19 01 13*	Ash	0,40
20 01 21*	Fluorescent tubes with mercury	0,13
20 01 27*	Paints, printing inks, adhesives, and resins containing hazardous substances	0,04
20 01 32	Medicines	0,02

20 01 31*		
20 01 36 20 01 35*	Discarded electrical and electronic equipment	0,10
20 01 39	Plastic	3,16
20 03 01	Mixed municipal waste	10,14
20 03 07	Bulky waste	1,92
	Sewage (black water)	20,55

\*- hazardous waste

The data in the table is compiled from the annual report on the management of ship-generated waste and cargo residues.

## **2.11 Summary of Legislation and Prescribed Rules for the Disposal of Ship Waste and Cargo Residues**

- MARPOL 73/78 Convention (International Convention for the Prevention of Pollution from Ships),
- Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships,
- Directive 2002/84/EC of the European Parliament and of the Council amending the directives on maritime safety and the prevention of pollution from ships,
- Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation of organizations in a Community eco-management and audit scheme (EMAS),
- Public Utilities Act of the Republic of Slovenia, No. 32/1993 and amendments),
- Environmental Protection Act (Official Gazette of the Republic of Slovenia, No. 44/2022 and amendments),
- Maritime Code (Official Gazette of the Republic of Slovenia, No. 62/2016 and amendments),
- Regulation on the manner, scope, and conditions for the implementation of the state public utility service for the collection of ship waste in the area of the Port of Koper (Official Gazette of the Republic of Slovenia, No. 59/2005),
- Decision on setting the price of services of the mandatory state public utility service for the collection of ship waste in the area of the Port of Koper (Official Gazette of the Republic of Slovenia, No. 120/2005 and amendments),
- Regulation on the manner, scope, and conditions for the implementation of the public utility service for handling animal by-products of category 1 and 2 (Official Gazette of the Republic of Slovenia, No. 44/2022),
- Regulation on port facilities for the reception of ship waste (Official Gazette of the Republic of Slovenia, No. 50/2023)
- Regulation on the management of batteries and accumulators and waste batteries and accumulators (Official Gazette of the Republic of Slovenia, No. 3/2010 and amendments),

- Regulation on packaging and packaging waste (Official Gazette of the Republic of Slovenia, No. 54/2021),
- Regulation on waste electrical and electronic equipment (Official Gazette of the Republic of Slovenia, No. 55/2015 and amendments),
- Regulation on waste (Official Gazette of the Republic of Slovenia, No. 77/2022),
- Regulation on the handling of waste medicinal products (Official Gazette of the Republic of Slovenia, No. 105/2008 and amendments),
- Regulation on the handling of waste cooking oils and fats (Official Gazette of the Republic of Slovenia, No. 70/2008),
- Regulation on the handling of biodegradable catering waste and green garden waste (Official Gazette of the Republic of Slovenia, No. 39/2010),
- Rules on the collection, transport, storage, handling, use, and disposal of animal carcasses as a type of animal by-product not intended for human consumption (Official Gazette of the Republic of Slovenia, No. 57/2023),
- Regulation on mandatory municipal public utility services for the collection of municipal waste (Official Gazette of the Republic of Slovenia, No. 33/2017 and amendments),
- Regulation on reporting formalities in maritime transport (Official Gazette of the Republic of Slovenia, No. 69/2012 and amendments).

## **2.12 Formalities for the Delivery and Disposal of Waste**

The waste collector from ships receives waste in accordance with this plan at designated port reception facilities. Mixed municipal waste from ships is handed over to the mandatory municipal public utility service provider responsible for municipal waste collection, while catering waste is transferred to the mandatory state public utility service provider for the management of animal by-products, where it is incinerated. Sewage from ships is discharged directly into a collector connected to a municipal wastewater treatment plant, managed by the municipal public utility service provider responsible for wastewater drainage and treatment.

All other types of ship-generated waste are received by the waste collector into reception facilities until they are handed over to authorized waste handlers with the necessary permits. This process includes completing the required accompanying documentation in compliance with applicable legislation (a record sheet is generated). In the event of an inability to accept standard types of waste from ships, handle them, or transfer them to authorized waste handlers due to force majeure, maintenance, or other exceptional circumstances, Luka Koper, d.d. will promptly inform ship representatives heading to Luka Koper of the situation, explaining the reasons for the inability to accept or dispose of waste.

## 2.13 Appointment of Person(s) Responsible for Implementing the Ship-Generated Waste Reception and Handling Plan

Table 18: Responsible Persons at Luka Koper

<b>Name</b>	<b>Address</b>	<b>Phone</b>	<b>Email</b>
President of the Management Board: Nevenka Kržan	Vojkovo nabrežje 38; 6501 Koper	+386 56656739	<a href="mailto:portkoper@luka-kp.si">portkoper@luka-kp.si</a>
Member of the Management Board - Labour director: Vojko Rotar	Vojkovo nabrežje 38; 6501 Koper	+386 56656 726	<a href="mailto:portkoper@luka-kp.si">portkoper@luka-kp.si</a>
Environmental Manager: mag. Franka Cepak	Vojkovo nabrežje 38; 6501 Koper	+386 56656 646	<a href="mailto:franka.cepak@luka-kp.si">franka.cepak@luka-kp.si</a>

*Ship Waste Reception Operator: Luka Koper INPO, d.o.o.*

Table 19: Responsible Persons at Luka Koper INPO Subsidiary

<b>Name</b>	<b>Address</b>	<b>Phone</b>	<b>Fax</b>	<b>Email</b>
Managing director: Robert Krajnc	Vojkovo nabrežje 38; 6000 Koper	+386 56656772	+386 56656406	<a href="mailto:inpo@luka-kp.si">inpo@luka-kp.si</a>
Head of utility unit: Kristifor Pantelin	Vojkovo nabrežje 38; 6000 Koper	+386 56656762	+386 56656406	<a href="mailto:inpokomunala@luka-kp.si">inpokomunala@luka-kp.si</a>

## 2.14 Description of Methods for Recording the Actual Use of Port Reception Facilities for Ship Waste

Table 20: Port Reception Facilities

<b>Port Facilities</b>	<b>Recording Actual Use</b>
Facility for bilge oil collection	Daily waste status records
Facility for preliminary hazardous waste storage	Daily waste status records
Facility for separate waste collection	Daily waste status records
Sewage collector	Internal records and certificates for sewage reception
Refrigerated container for catering waste	H2 Form (HACCP)
Waste collection vessels	Operational log of workboats
Tank trucks	Records of kilometres travelled and working hours
Container transport trucks	Records of kilometres travelled and working hours

## 2.15 Description of Methods for Recording the Quantities of Waste Received from Ships

Table 21: Process Flow from Waste Reception to Storage and Record-Keeping

<b>Process</b>	<b>Responsible Person/ Activity Executor</b>	<b>Type of Record</b>

1.	Waste reception onboard the ship	Driver	Signed confirmation form (Annex 3 of Directive 2019/883/EU)
2.	Completion of the waste handover certificate onboard	Driver	
3.	Transport of waste to the Waste Management Centre, bilge facility, or sewage collector	Driver	Weighing slip upon introduction of weighing
4.	Waste sorting	Driver	
5.	Waste weighing	Driver	
6.	Preliminary waste storage	Technician	Excel spreadsheet
7.	Waste dispatch from the port	Technician	Record sheets and Excel spreadsheet

For maintaining records of waste disposal, internal documents (Excel spreadsheets) are completed to monitor the utilization of port reception facilities. A weighing procedure is introduced to track the quantities of waste received from ships. For the transfer of received waste quantities that are not handed over to authorized waste handlers, record sheets are completed and verified in compliance with applicable legislation.

The shipowner's representative is informed about the quantity and type of waste received through a waste delivery certificate and additionally upon receiving the invoice for the waste reception service.

For internal record-keeping, Luka Koper, d.d. is implementing the supplier's SAP system. This information system is expected to become operational in January 2024.

## **2.16 Description of Waste and Cargo Residue Handling Procedures in the Port**

Only a minimal amount of waste is disposed of, primarily in landfills in Slovenia. This includes mixed municipal waste that can no longer be separated. Such waste is handed over by the ship waste collector to public utility Marjetica Koper, which ensures proper handling through authorized companies. Catering waste from ships is also handed over to KOTO Company, which incinerates this type of waste. Ship bilge oils are incinerated outside Slovenia. Sewage is discharged directly into a collector connected to a municipal wastewater treatment plant.

The collection of ship waste in the port is carried out in accordance with internal operational procedures: OP 36 - Waste Management and DN 220 - Execution of the State Public Utility Service for Waste Collection. This is governed by the contract between Luka Koper, d.d. and Luka Koper INPO, d.o.o., as well as the applicable legislation.



### **3 REFERENCE DATA (ANNEX)**

- Annex 1: Description of the cost coverage system for the operation of the public utility service for waste collection from ships in accordance with the new Directive (EU) 2019/883.

Annex 1: Description of the cost coverage system for the operation of the public utility service for waste collection from ships

**DESCRIPTION OF THE COST COVERAGE SYSTEM FOR THE OPERATION OF THE PUBLIC UTILITY SERVICE FOR WASTE COLLECTION FROM SHIPS**

**Contents**

1.Introduction.....43

2.Costs of the Public Utility Service for Ship Waste Collection .....44

3.Pricing of the Public Utility Service for Ship Waste Collection .....47

    3.1.Definition of Fee Reduction Criteria .....47

    3.2.Cost Definition.....49

    3.3.Service Cost Calculation Examples.....54

**Table of Tables**

Table 1: Overview of operating costs by waste category for 2023 and 2024 in EUR.....45

Table 2: Number of employees in the public utility service for waste collection.....45

Table 3: Overview of key fixed assets for SM 8510 Liquid Waste Collection in the public utility service for waste collection and associated direct costs for 2024 in EUR .....46

Table 4: Overview of key fixed assets for SM 8540 Solid Waste Collection in the public utility service for waste collection and associated direct costs for 2024 in EUR.....46

Table 5: Frequency of ship arrivals at the Port of Koper during the period (Jan-Aug) 2023 .....48

Table 7: Cost of pumping liquid waste in EUR per hour .....49

Table 8: Direct fee for liquid waste per hour in EUR .....50

Table 9: Calculation of the direct fee for liquid waste per cubic meter in EUR .....50

Table 11: Indirect fee for a ship between 15,001 and 30,000 GT per day in EUR .....51

Table 12: Indirect fee for a ship between 15,001 and 30,000 GT per day in EUR .....51

Table 13: Indirect fee for a ship based on size per day in EUR .....52

Table 14: Indirect fee for a cruise ship based on passenger count in EUR.....52

Table 15: Surcharge for services outside regular working hours .....52

Table 16: Calculation of the direct fee for waste removal from a ship at anchor per hour.....53

Table 17: Surcharge for using a vessel for solid waste removal from a ship at anchor .....53

## 1. Introduction

Luka Koper, d.d. with the signing of the concession agreement for performing port activities, managing, developing, and regularly maintaining port infrastructure (no. 2411-08-800011 dated 8th September 2009), received the exclusive right to perform port activities related to cargo handling and maritime transport in the port area, as well as the exclusive right to manage the port and oversee the management, operation, and development of the port infrastructure that is not intended for public transport.

For the execution of specific activities, Luka Koper, d.d. has contracted its subsidiary Luka Koper INPO, d.o.o. As of 1 as a subcontractor. On 1st January 2017, the companies also signed an annex to the Contract on the Method, Subject, and Conditions for Providing the Public Utility Service of Ship Waste Collection in the Port of Koper between Luka Koper, d.d. and Luka Koper INPO, d.o.o., dated 22nd December 2008. This annex established that, starting from 1st. January 2017, the waste collector from ships, as an executing contractor, carries out the public utility service of collecting ship waste in the Port of Koper on behalf of and for the account of Luka Koper, d.d

The costs of operating the public utility service of collecting ship waste include the following:

- Luka Koper INPO, d.o.o., which operates as the subcontractor of Luka Koper, d.d. and
- Luka Koper, d.d., which, as the parent company, defines the procedures for handling ship waste in the Plan for Ship Waste and Cargo Residue Collection in the Port of Koper and other systemic documents of the company, performs internal process control, monitors waste handling indicators, tracks costs, prepares plans related to the upgrade of port facilities for ship waste and cargo residue collection, monitors port occupancy, carries out investments in port infrastructure, ensures technological development of the process, ensures efficient maintenance of facilities and port infrastructure, and ensures an efficient system for handling ship waste to avoid delays for ships. Luka Koper, d.d. reports on the execution of the public utility service of collecting ship waste to various ministries and authorities.

The estimated pricing is based on the accounting statements from the 2024 plan, the number of incoming ships, and the quantity of collected waste from January to August 2023. A business forecast for 2023 and a detailed plan for 2024 have been developed.

In light of changes to the waste calculation methodology, as outlined in the Regulation on Port Capacity for Ship Waste Collection (Official Gazette of the RS no. 50/23) and COMMISSION IMPLEMENTING REGULATION (EU) 2022/89 of 21st January 2022, which sets the rules for applying Directive (EU) 2019/883 of the European Parliament and Council regarding the method used to calculate the required dedicated storage capacity, the new fee calculations for the flat-rate fee are based solely on the figures from the 2024 business plan. This includes an anticipated increase in quantities by a factor of 3.5 (where ships will deliver all quantities of Marpol Annex V waste, or up to their waste storage capacities, at the same fee). This estimate was derived through an analysis comparing the quantities of waste delivered and reported. Furthermore, the requirements of COMMISSION IMPLEMENTING REGULATION (EU) 2022/89 of 21 January 2022 laying down rules for the application of Directive (EU) 2019/883 of the European Parliament and of the Council as regards the method to be used for the calculation of sufficient dedicated storage capacity have been taken into account, particularly regarding the threshold quantities of waste that ships are allowed to retain or are required to dispose of, depending on their next port of call.

Luka Koper, d.d. will annually review the price list based on actual financial statements, the number of incoming vessels, and the volume of collected waste. This review will assess any deviations from the current price list. The costs associated with further waste management outside the port area will be evaluated every six months. If the company determines that changing circumstances have resulted in higher or lower service costs, it will publish an updated price list.

## 2. Costs of Public Utility Services for Waste Collection from Vessels

The public utility service for collecting waste from vessels includes two main sub-activities: handling solid waste and handling liquid waste.

1. The total costs of the public utility service for waste collection from vessels include:  
Direct costs for the sub-activity of managing solid waste, recorded under the cost centre Solid Waste Collection from Ships (SM 8540). These costs are directly attributed to the cost centre, with the exception of depreciation, which is estimated based on the assessed acquisition value of fixed assets within the cost centre (SM 8540) as if the purchase had occurred on 31 August 2023. Depreciation rates are applied according to the company's accounting policies using the straight-line depreciation method. Where the estimated useful life exceeded that defined by the accounting policies, depreciation rates were adjusted accordingly.
2. Direct costs for the sub-activity of managing liquid waste, recorded under the cost centre Liquid Waste Collection from Ships (SM 8510). These costs are directly attributed to the cost centre, with the exception of depreciation, which is estimated based on the assessed acquisition value of fixed assets within the cost centre (SM 8510) as if the purchase had occurred on 31 August 2023. Depreciation rates are applied according to the company's accounting policies using the straight-line depreciation method. Where the estimated useful life exceeded that defined by the accounting policies, depreciation rates were adjusted accordingly.
3. Indirect costs from the Waste Management Centre cost centre (SM 8530), allocated to the solid waste sub-activity (SM 8540). These costs are distributed based on the proportion of solid waste from vessels to the total amount of waste collected within the port area.
4. Indirect costs from Luka Koper INPO, d.o.o., allocated to both solid and liquid waste management within the public utility service. The calculated amount of indirect costs is distributed between the sub-activities based on the share of direct costs for each respective cost centre. Detailed allocation rules are provided below.
5. Indirect costs from Luka Koper, d.d., allocated to both solid and liquid waste management. These include the indirect operational costs of the professional departments of the parent company, which acts as the provider of the public utility service. These costs are distributed between the sub-activities of solid and liquid waste management according to the ratio of direct operating costs in the cost centres for Solid Waste Collection and Liquid Waste Collection to the total direct costs of the public utility service. Detailed allocation rules are provided below.
6. Return on invested business-essential fixed assets, calculated as 5% of the value of the assets necessary for delivering the public utility service.
7. Concession fees.  
Luka Koper, d.d., in accordance with the concession agreement, pays the state a concession fee amounting to 3.5% of its business revenue, including revenue from the public utility service for waste collection from vessels. Based on this, the concession fee is calculated using the total costs from items 1 to 6. The resulting concession fee costs are added to the overall expenses of providing the public utility service for ship-generated waste collection.

Table 1: Summary of Operating Costs by Waste Category for 2023 and 2024 (in EUR)

Item	SOLID WASTE		LIQUID WASTE		PUBLIC WASTE COLLECTION SERVICE FROM VESSELS	
	N 2024	Oc 2023	N 2024	Oc 2023	N 2024	Oc 2023
<b>Material costs</b>	15,745	12,148	4,400	3,458	20,145	15,606
<b>Service costs</b>	407,423	130,392	216,923	188,251	624,346	318,643
<b>Personnel costs</b>	283,787	245,359	111,862	112,348	395,649	357,707
<b>Depreciation</b>	155,787	155,787	46,183	46,183	201,970	201,970
<b>Other costs</b>	18,673	18,781	70	70	18,743	18,851
<b>DIRECT COSTS OF PUBLIC SERVICE</b>	<b>881,415</b>	<b>562,467</b>	<b>379,438</b>	<b>350,309</b>	<b>1,260,853</b>	<b>912,776</b>
<b>Indirect costs of the Waste Management Centre</b>	223,878	251,807	/	/	223,878	251,807
<b>Indirect costs of Luka Koper Inpo company</b>	113,279	103,953	89,723	45,142	203,002	149,095
<b>State subsidies received</b>	-69,856	-59,017	-30,701	-26,324	-100,557	-85,341
<b>Indirect costs of Luka Koper d.d.</b>	119,697	65,116	51,528	40,555	171,225	105,670
<b>New estimated value of fixed assets</b>	1,741,027	1,741,027	760,496	760,496	2,501,523	2,501,523
<b>Profit</b>	87,051	87,051	38,025	38,025	125,076	125,076
<b>Concession fee</b>	49,162	36,682	19,151	16,238	68,313	52,920
<b>TOTAL PUBLIC SERVICE (direct and indirect costs)</b>	<b>1,404,627</b>	<b>1,048,059</b>	<b>547,164</b>	<b>463,945</b>	<b>1,951,791</b>	<b>1,512,0</b>

The baseline quantities of waste are summarized from the period 1–8 of 2023 (solid waste: 4,047 m<sup>3</sup> and liquid waste: 1,130 m<sup>3</sup>), which are annualized to reflect the yearly quantities for 2023 and 2024. The most significant direct costs of the public economic service for collecting waste from vessels in 2024, accounting for 49% of all direct costs, are the costs of services, i.e., the subsequent disposal of waste. These costs include expenses for transferring waste collected from vessels to waste processors outside the port, cleaning, and sample analysis. In 2024, the economic public service for collecting waste from vessels will directly incur labour costs for 7 employees. Of these, 2 employees work in the cost centre SM 8510 (Liquid Waste Collection from Ships) in the roles of municipal unit supervisor (1) and maintenance operator (1). In the cost centre SM 8540 (Solid Waste Collection from Ships), 5 employees are assigned: waste collector (1), driver of municipal machinery (3), and municipal unit manager (1).

Table 2: Number of employees in the public waste collection service

EMPLOYEES	SOLID WASTE	LIQUID WASTE			TOTAL	
		31.12. 2024	31.12. 2023	31.12. 2024	31.12. 2023	31.12. 2024
Wastewater Cleaning			2	2	2	2
Collection of Waste from Ships	5	5			5	5
<b>TOTAL</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>7</b>

The costs of assets used in the implementation of the public waste collection service in 2024 are as follows:

- Depreciation costs are estimated based on the purchase value of fixed assets per cost center, as recorded in the financial statements as of 31 August 2023, and depreciation rates from the accounting rules. Exceptions are two fixed assets—a motorboat and a truck with a crane for waste collection—that the company plans to purchase by the end of 2024. For these assets, the estimated purchase values are based on received indicative offers, and depreciation is calculated accordingly. The estimated purchase value for the boat is €1,000,000 and for the truck with a crane, €217,000. Depreciation rates used are in line with accounting rules.

- Maintenance costs,
- Fuel costs, and
- Insurance costs.

Direct costs of working assets in the public utility service for waste collection from vessels account for 16% of all costs of this utility service in 2024.

Table 3: Overview of key fixed assets in SM 8510 (Liquid Waste Collection) in the public utility service for waste collection and related direct costs for 2024 in EUR.

Asset Description	Asset Value	Depreciation Rate	Annual Depreciation
<b>IVECO Truck with Tank</b>	173,601	12.5%	21,700
<b>MERCEDES Truck with Tank</b>	146,052	12.5%	0
<b>Pipeline Construction for Tank Containers</b>	91,613	10.0%	9,161
<b>Replacement of Pneumatic Pump on Truck No. 2</b>	28,450	20.0%	0
<b>ABSU Tank Container</b>	22,000	5.0%	1,100
<b>TOYOTA HILUX 2.5 D-4D Vehicle</b>	21,798	20.0%	0
<b>Heating System Installation for Tank Containers</b>	21,741	20.0%	4,348
<b>ABSU Tank Container 100153-4</b>	19,730	12.5%	0
<b>Sanitary Facility - Showers</b>	18,355	12.5%	0
<b>Concrete Collection Basin for Bilge Water</b>	17,896	16.6%	0
<b>Other Assets</b>	199,261	-	9,873
<b>TOTAL ASSETS</b>	<b>760,496</b>	-	<b>46,183</b>

Table 4: Overview of key fixed assets in SM 8540 (Solid Waste Collection) in the public utility service for waste collection and related direct costs for 2024 in EUR.

Asset Description	Asset Value	Depreciation Rate	Annual Depreciation
Motorboat M/C KP 194	1,000,000	12.50%	125,000
Workboat HIPPY 30 L for Waste KP 289	271,821	12.50%	0
MERCEDES Truck with FASSI Crane	217,000	12.50%	27,125
Telescopic Machine DIECI SAMSON 65.8 Loader	95,977	12.50%	0
Commercial Vehicle TRAFIC FURGON L2H1P2	75,000	20.00%	0
Passenger Vehicle CITROEN BERLINGO THP 110	16,351	20.00%	0
Refrigerated Container 20"	15,200	5.00%	760
Modification of Commercial Vehicle	9,514	20.00%	1,903
Living Container 10"	3,825	3.00%	0
Refrigeration Unit DORIN AU-180 cc-E	3,330	5.00%	166
Other Assets	33,010	-	833
<b>TOTAL ASSETS</b>	<b>1,741,027</b>	-	<b>155,787</b>

Remaining direct costs in 2024 account for 3% of all costs of this public utility service. The most significant remaining direct costs include:

- Labor costs,
- Material costs—fuel, and
- Other costs—compensation for the use of construction land and indirect operating costs of the utility service for waste collection from vessels.

Indirect costs of the Waste Management Centre are determined using the proportion of ship-generated waste in the total waste within the port area. Based on the share of solid waste from ships in all waste in the port area, the calculated costs of the Waste Management Centre (SM 8530) are transferred to SM 8540 (Solid Waste Collection from Ships). In the period 1–8 of 2023, this share was 34%, and a similar percentage is anticipated for 2024.

The indirect costs of the company Luka Koper INPO are determined in two steps. First, the total indirect costs are identified, and then they are allocated to SM Solid or Liquid Waste Collection from Ships.

The total indirect costs are determined:

- Based on the share of direct operating costs of the Utility Service ZOP in the company's total direct costs by cost type. The direct costs of Luka Koper INPO are separated by cost centres into Public Utility Service ZOP operations and other commercial activities

- Based on the determined shares by cost type, the Public Utility Service ZOP (Solid (SM 8540) and Liquid Waste Collection (SM 8510) from Ships is charged with the indirect costs of Luka Koper INPO's management.

For the allocation of indirect costs by cost type to solid and liquid ship-generated waste, the proportion of direct costs of SM Solid or Liquid Waste Collection in all direct costs of Public Utility Service ZOP by cost type is used.

The indirect costs of Luka Koper, d.d., are also determined in two steps. First, the total indirect costs are identified, and then they are allocated to SM Solid or Liquid Waste Collection from Ships.

The indirect costs of Luka Koper, d.d., recorded in SM 6660 (Ship Waste Collection), are determined using the criteria outlined in the Accounting Rules of Luka Koper, d.d. These indirect costs are then allocated to the cost centres for Solid and Liquid Waste Collection from Ships based on the proportion of direct costs of these cost centres in the total direct costs of the Public Utility Service ZOP. The company estimates this cost will amount to €171,225 in 2024.

### **3. Pricing of the Public Utility Service for Ship Waste Collection**

Below is an explanation of the cost coverage method for the public utility service of waste collection from vessels, based on the ship's size and type of waste: The cost coverage method is determined in accordance with Directive (EU) 2019/883 of the European Parliament and the Council of April 17, 2019, and the Regulation on port reception facilities for ship-generated waste (Official Gazette No.: 50/2023). The following principles were considered when preparing the pricing model:

- To encourage the disposal of waste from Annex V of the MARPOL Convention, excluding cargo residues, no direct fee is charged for such waste. This ensures the right to dispose of waste without incurring any additional costs based on the amount of waste disposed of, except when the quantity exceeds the maximum designated storage capacity as specified in the form in Annex 2 to the Directive.
- Promotion of separate waste collection.
- Fees are dependent on the category, type, and size of the ship.
- Fees vary based on services provided to ships outside regular working hours and the hazardous properties of the waste.
- Ships pay an indirect fee (flat-rate) regardless of whether waste is delivered in the port or not.
- The indirect fee (flat-rate) includes indirect administrative costs and a large portion of direct operational costs as specified in Annex 4 of Directive (EU) 2019/883.
- Part of the costs of the Public Utility Service for handling liquid waste is covered by a direct fee, based on the actual volume of waste delivered or pumping hours.
- In the case of cargo residues and waste quantities exceeding the storage capacity for individual types of waste, fees are charged based on offers reflecting actual waste disposal costs and other associated service costs.
- Fee reductions for ships that demonstrate sustainable and environmentally friendly waste management practices.
- Fee reductions based on the frequency of visits to the port.

#### **3.1. Definition of Fee Reduction Criteria**

##### *3.1.1. Fee Reduction for Ships Demonstrating Sustainable and Environmentally Friendly Waste Management*

Article 8(5)(b) of Directive 2019/883 and Article 17(5) of the Regulation on Port Reception Facilities for Ship-Generated Waste (Official Gazette No.: 50/2023) state that port fees are reduced if the ship's design, equipment, and operation demonstrate that it generates less waste and manages waste sustainably and in an environmentally sound manner. The Public Utility Service operator can access proof that a ship meets these criteria only through the national single window managed by the Maritime Administration of the Republic of Slovenia. This involves documentation that the ship must report based on the Regulation on Amendments and Supplements to the Regulation on Reporting Formalities in Maritime Transport.

At the EU level, there are no uniform criteria, so we have referred to the findings of the study “Identifying criteria for determining whether a ship produces reduced quantities of waste and manages it in a sustainable and environmentally sound manner” (Delft, CE Delft, March 2021, source: www.cedelft.eu), commissioned by the European Commission (DG Move) under reference no. MOVE/DDG2.D2/2019-FV-513.

We also reviewed documentation and schemes from various EU ports, noting that different criteria for fee reductions are applied depending on specific circumstances and policies. The decision to offer incentives based on criteria is therefore made by the port, depending on its market strategy and financial capacity.

Based on the above, we have decided to provide a 10% discount on the flat-rate fee for ships holding the Green Award (GA) certificate.

The Green Award is a voluntary evaluation and certification scheme that inspects and certifies ships based on industrial standards for safety, quality, and environmental performance (including waste and wastewater management). It was established in 1994. GA conducts audit and certifies ships and shipping companies in over 30 countries in Europe, Asia, the Middle East, Africa, Australia, and America. GA maintains lists of certified ships.

Until now, the Decision on Setting the Price of Services for the Mandatory National Public Economic Service for Ship-Generated Waste Collection in the Koper Cargo Port Area (Official Gazette RS, No. 120/05 and 17/06) did not foresee discounts.

### 3.1.2. Fee reductions based on the frequency of visits to the port.

Table 5: Frequency of ship arrivals at the Port of Koper during the period (Jan-Aug) 2023

Entrance criterion	Number of ships	% ships	Number of berths	% berths (cumulative)	% ships (cumulative)	% berths (cumulative)
0	0	0,00%	0	0,00%	0	0
1	335	67,27%	335	32,18%	67,27%	32,18%
2	62	12,45%	124	11,91%	79,72%	44,09%
3	35	7,03%	105	10,09%	86,75%	54,18%
4	15	3,01%	60	5,76%	89,76%	59,94%
5	10	2,01%	50	4,80%	91,77%	64,75%
6	9	1,81%	54	5,19%	93,57%	69,93%
7	10	2,01%	70	6,72%	95,58%	76,66%
8	5	1,00%	40	3,84%	96,59%	80,50%
9	5	1,00%	45	4,32%	97,59%	84,82%
10	2	0,40%	20	1,92%	97,99%	86,74%
11	2	0,40%	22	2,11%	98,39%	86,74%
12	2	0,40%	24	2,31%	98,80%	91,16%
13	1	0,20%	13	1,25%	99,00%	92,41%
14	2	0,40%	28	2,69%	99,40%	95,10%
15	0	0,00%	0	0,00%	99,40%	95,10%
16	0	0,00%	0	0,00%	99,40%	95,10%
17	3	0,60%	51	4,90%	100,00%	100,00%

An analysis of ship visit frequency from January to August 2023 revealed the following: 67.27% of ships visited the port only once during this period. Only 0.6% of ships recorded 17 visits in the same timeframe. Due to these findings, visit frequency has not yet been incorporated into the fee reduction system.

However, ships providing a Certificate of Exemption in accordance with Article 9, concerning requirements outlined in Articles 6, 7(1), and 8 of Directive (EU) 2019/883, in the Port of Koper, Slovenia, may be granted exemptions as per Article 9 of the mentioned Directive.

### 3.1.3. Other Incentives for Waste Disposal



To further encourage the disposal of waste from Annex V of the MARPOL Convention (excluding cargo residues): No direct fee is charged for such waste to ensure the right to disposal without any additional costs based on the amount of waste disposed of, except where the volume exceeds the ship's designated maximum storage capacity.

### 3.2. Cost Definition

Costs related to solid waste management are covered by:

- A total indirect fee (flat-rate) that covers 100% of costs associated with the handling of ship-generated solid waste. It is assumed that all collected solid waste quantities are from the ship. Consequently, all costs for managing solid waste are covered by the indirect fee in subsequent calculations.
- if the quantities of solid waste delivered on board exceed the maximum dedicated on-board storage capacity, in addition to the indirect fee, a direct fee shall be charged according to the actual quantities of waste delivered, based on the actual costs of further waste management outside the port and the current offers,
- in the case of solid cargo residues, in addition to the indirect fee, a direct fee will be charged according to the previous offer.

Costs related to the handling of liquid waste (bilge oil, oily water, and sewage) are covered by:

- A total indirect fee (flat-rate) that accounts for 30% of liquid waste management costs.
- A direct fee, determined by the cost per hour of pumping bilge oil, oily water, and sewage. If sewage does not meet the parameters set by the local receiver, additional transportation and treatment costs are charged at a higher rate determined by a subsequent offer.
- A direct fee, based on the volume of bilge oil, oily water, and sewage (per m<sup>3</sup>). This fee covers the remaining liquid waste management costs not included in the first two points.

#### A. Direct Fee Covering the Costs of Pumping Liquid Waste

The price covering the costs of pumping liquid waste is determined based on the direct costs of the equipment used for waste collection, to which an additional charge for the indirect costs of the cost-centre Liquid Waste Collection from Ships is added.

The direct costs of the equipment include labour costs, energy, depreciation, and maintenance. All costs are calculated on an hourly basis.

Table 6: Cost of Pumping Liquid Waste in EUR per Hour

<b>Calculation of the Cost of Pumping Ship's Bilge Oils – Oily Waters</b>	<b>EUR/h</b>	<b>Factor</b>
Labor cost	61	
Fuel cost	7	
Depreciation	35	
Maintenance cost	15	
<b>Total direct costs</b>	<b>117</b>	
Markup for indirect costs (SM Collection of Liquid Waste from Ships)	138	1.18
<b>Total costs before concession</b>	<b>255</b>	
Concession	9	
<b>Cost of pumping ship's bilge waters</b>	<b>264</b>	
Direct fee covering the cost of pumping ship's bilge oils or oily waters, including sewage	83,035	

Table 7: Direct Fee for Liquid Waste per Hour in EUR

	<b>EUR/h</b>
<b>Cost of pumping ship's bilge oils, oily and sewage waters</b>	264

Pumping of ship bilge oils, oily water, and sewage water from ships requires two employees. The fuel cost is determined based on actual fuel consumption, divided by the total number of hours worked. The depreciation rate is set at 8.3%, corresponding to a 12-year service life for the equipment. Both annual depreciation and maintenance costs are expressed on an hourly basis. The calculation assumes 250 hours per year, based on the average number of hours for bilge oil, oily water, and sewage water

pumping services performed in 2022, as well as the estimates for 2023 (based on data from January to August 2023).

The factor for calculating indirect costs is determined by dividing the variable costs by the fixed costs of the cost-centre Liquid Waste Collection from Ships in 2022. The resulting hourly cost is then increased by a concession fee of 3.5%.

At the Port of Koper, it is estimated that, based on the projected annual total of 250 hours for pumping ship bilge oils, oily water, and sewage water, Luka Koper d.d. will generate EUR 83,035 in annual revenue from these services.

At the ship's representative request, daily rental of a tanker is also available, with charges based on a prior offer.

## B. Direct Fee for Liquid Waste Disposal

Based on the total operating costs of the public utility service, as presented in Table 1, which were previously reduced to cover the costs of pumping ship bilge oils, oily water, and sewage water, and using 70% of the costs covered by the direct fee for liquid waste disposal, the direct fees for the collection of 1 m<sup>3</sup> of waste have been calculated.

Table 8: Calculation of the Direct Fee for Liquid Waste per m<sup>3</sup> in EUR

<b>Calculation of the Direct Fee per m<sup>3</sup> of Waste</b>		<b>LIQUID WASTE</b>
<b>Item</b>		<b>2024</b>
Operating costs of the GJS covered by the indirect fee (50% of the total operating costs of the GJS)		383.015
Direct fee covering the costs of pumping ship's bilge oils, oily waters, and sewage waters		83.035
Total costs reduced to cover the pumping costs of ship's bilge oils (i.e., oily waters)		299.980
Equivalent waste quantity		1.185
Full cost / m <sup>3</sup>		253

The direct fee for sewage water is determined based on the costs of collecting such waste by the final waste collector.

<b>Waste Type</b>	<b>EUR/m<sup>3</sup></b>
Liquid Waste	253
Sewage Water	12.9

## C. Direct Fee for Solid Waste Disposal

A direct fee is applied when waste from Annex V of the MARPOL Convention is disposed of, provided the amount exceeds the maximum onboard storage capacity for such waste.

A direct fee is also applied in the case of disposal of cargo residues from Annex V of the MARPOL Convention.

For the cases mentioned above, in addition to the indirect fee, a direct fee is charged based on the actual quantity disposed of, taking into account the actual costs of further waste handling outside the port and any other associated costs or the offer.

## D. Indirect Fee (flat-rate)

The price of the indirect fee (flat-rate) is determined on a daily basis, not solely based on a single ship visit to the port, as the number of days that ships remain in port varies from vessel to vessel. In recent years, ships have, on average, remained in port for 2 days.

When setting the price, the average number of ships per year is also considered. In the most recent calculation, we used data on ship arrivals for the period from January to August 2023 and prepared an estimate of the total number of ship arrivals for the remainder of 2023.

Based on the total operating costs of the public service (GJS) presented in Table 1, the pre-determined share of costs covered by the indirect fee (100% of costs related to solid waste handling and 30% of costs for liquid waste handling), the number of ships, and the average length of stay in port, the prices for the indirect fee were calculated.

The calculated price represents the flat-rate fee (for solid and liquid waste) applied to the ship's size. The calculated price has been assigned to the class of ships from 15,001 to 30,000 GT. This class was selected as the reference since, currently, the largest proportion of ships falls into this category (on average, 32% of all ships arriving at the port in the last 4 years).

Table 9: Indirect Fee for Ships from 15,001 to 30,000 GT per Day in EUR

<b>Calculation of the Indirect Fee for Ships from 15,001 to 30,000 GT</b>	<b>SOLID WASTE</b>	<b>LIQUID WASTE</b>
<b>Item</b>	<b>N 2024</b>	<b>N 2024</b>
Total operating costs of the GJS	1.404.627	547.164
Operating costs of the GJS covered by the indirect fee	1.404.627	164.149
Passenger income per passenger	51.585	
Number of ships in the year	1.579	1.579
Total operating costs of the GJS per ship	857	104
Total lump sum for solid and liquid waste (per ship)	961	
Total lump sum for solid and liquid waste (per ship/day)	481	

Table 10: Indirect Fee for Ships from 15,001 to 30,000 GT per Day in EUR

<b>Indirect Lump-Sum Fee EUR per Ship/Day</b>	<b>EUR per ship/day</b>
Total lump sum for solid and liquid waste (per ship from 15,001 to 30,000 GT/day)	481

In calculating the flat-rate fee, tugboats, military vessels, and barges were excluded from the ship count. As per Article 1, Paragraph 2. of the Regulation on Port Facilities for Waste Reception from Vessels, which outlines the ships covered, the regulation applies to all vessels regardless of their flag that arrive at or are located in the ports of the Republic of Slovenia, except for military vessels, auxiliary vessels, or other vessels owned or operated by the state for non-commercial purposes, and vessels used for providing port services as per Paragraph 1 of Article 1 of Regulation (EU) 2017/352 of the European Parliament and Council dated 15 February 2017, establishing a framework for port services and common rules for the financial transparency of ports (Official Journal L No. 57, March 3. 2017, p. 1), as last amended by Regulation (EU) 2020/697 of the European Parliament and Council, dated 25 May 2020, amending Regulation (EU) 2017/352.

Based on the calculated lump sum, we used multipliers to calculate the indirect fees for the remaining ship size classes, which are determined based on the estimated time required for waste collection. The increase in the indirect fee based on ship size (with increasing gross tonnage) is justified by the higher involvement of resources, personnel, and port capacities needed to handle waste and cargo residues from larger vessels.

Table 11: Indirect Fee for Ships Based on Size per Day in EUR

<b>Lump-Sum Fee Based on Ship Size</b>	<b>Multiplier</b>	<b>Price per Day</b>
<b>Solid and liquid waste</b>		<b>EUR</b>
Up to 500 GT	0.20	97
From 501 to 1,000 GT	0.30	146
From 1,001 to 4,000 GT	0.59	283

From 4,001 to 10,000 GT	0.66	317
From 10,001 to 15,000 GT	0.82	396
From 15,001 to 30,000 GT	1.00	481
From 30,001 to 50,000 GT	1.11	535
From 50,001 to 75,000 GT	1.29	619
Over 75,001 GT	1.44	693

Discounts are applied for ships holding a GA certificate at a rate of 10% of the flat-rate fee.

Passenger ships are charged an additional indirect fee based on the number of passengers, alongside the fee for the ship's size. Based on available data on the estimated number of passenger ships arriving at the Port of Koper and the quantity of waste disposed of by passenger ships in 2023, the fee for a ship with 51-200 passengers is calculated at 113.91 EUR. The calculation takes into account the average number of passengers per class. The price for the 13 to 50 passenger class remains the same as in the previous fee schedule. The fee schedule for each class based on the number of passengers is presented in the following table. The company estimates that the total indirect fee revenue from passenger ships based on the number of passengers will be 51,585 EUR annually.

Table 12: Indirect Fee for Passenger Ships Based on Number of Passengers in EUR

<b><i>Flat-rate fee based on the number of passengers per ship</i></b>	<b><i>Price per day EUR</i></b>
13-50	80
51-200	114
Each Additional 50	28

Table 13: Surcharge for Services Outside Regular Working Hours

<b><i>Surcharge Rate for Off-Hours Services</i></b>	<b><i>Percentage of flat-rate fee %</i></b>
Weekdays from 3:00 PM to 7:00 AM	50%
Sundays and holidays from 7:00 AM to 3:00 PM	50%
Sundays and holidays before 7:00 AM and after 3:00 PM	100%
Saturdays from 3:00 PM to 7:00 AM	75%

## **E. Price for Other Direct Fees**

Table 14: Calculation of the Direct Fee for Waste Disposal from Ships at Anchor per Hour

<b>Calculation of the vessel usage cost for transporting solid waste from the ship to the anchorage</b>	<b>Cost (EUR/hour)</b>
Labor cost	61
Fuel cost	19
<b>Total direct costs</b>	<b>81</b>
Concession	3
<b>Total vessel usage cost</b>	<b>83</b>

Table 15: Surcharge for Using a Vessel for Solid Waste Disposal from Ships at Anchor

	<b>EUR/Hour</b>
Use of vessel for solid waste disposal from ships at anchor	83
Use of vessel for oily water disposal	Actual cost
In case of other types of extraordinary waste type and their handling	Actual cost

Actual costs will be charged based on the previously approved offer by the shipowner's representative.

#### **F. Notification**

Waste disposal notification must be submitted:

- at least 24 hours prior to arrival if the port of call is known, or
- as soon as the port of call is known if this information is available less than 24 hours prior to arrival, or
- no later than the departure from the previous port if the journey lasts less than 24 hours.

#### **G. Exemptions from payment of flat-rate fee for waste disposal**

Exemptions from the payment of the flat-rate fee based on the provisions of Article 9 of Directive 2019/883 and Article 15 of the Regulation on Port Facilities for Waste Reception from Vessels (Official Journal No.: 50/2023) can be determined by the Maritime Administration using the form from Annex 5 of Directive 2019/883/EU.

The following ships are exempt from the lump sum payment at the port, irrespective of the previous paragraph:

- Fishing vessels,
- Passenger ships with up to 12 passengers,
- Service vessels (e.g., tugboats, pilot boats, vessels for fuelling ships, vessels for mooring ships, vessels for waste collection, etc.),
- Military vessels and auxiliary or other vessels owned by the state.

## H. Special Cases

In cases where data on the designated maximum storage capacity for a specific type of waste is not available in the national system (information system), the port will charge, in addition to the flat-rate fee, the total actual quantity of waste received according to the proposed price list.

For foreign-flagged military ships and other ships that are not common at the Koper cargo port, the current price list does not apply, and waste reception services will be provided according to an offer based on prior inquiry.

Value-added tax (VAT) is not included in the public service fee.

### 3.3. Service Cost Calculation Examples

#### 1. Example

A. A ship with 37,726 GT is docked in the port for 1 day and disposes of waste as follows.

Flat-rate fee for a ship with 37,726 GT in port is 535.00 EUR.

B. All disposed waste is from Annex V of MARPOL:

- 1.5 m<sup>3</sup> of mixed waste
- 2 m<sup>3</sup> of hazardous solid waste
- 3 m<sup>3</sup> of Category I catering waste

The quantity of disposed waste does NOT exceed the ship's maximum designated storage capacity, so no direct fee is charged.

Amount = 0 EUR

C. The waste was disposed of during working hours (weekdays, between 7:00 AM and 3:00 PM), so no surcharge applies.

Amount = 0 EUR

Calculation = A + B + C = 535.00 EUR + 0 + 0 = 535.00 EUR
---

## 2. Example

A. A ship with 37,726 GT is docked in the port for 3 days and disposes of waste as outlined below.

Flat-rate fee for a ship with 37,726 GT in port is  $535.00 * 3 \text{ days} = 1,605.00 \text{ EUR}$ .

B. The following waste is disposed of from Annex V of MARPOL:

- 1.5 m<sup>3</sup> of mixed waste
- 2 m<sup>3</sup> of hazardous solid waste
- 3 m<sup>3</sup> of Category I catering waste

The quantity of disposed waste from Annex V of MARPOL does NOT exceed the maximum designated storage capacity on the ship, so no direct fee is charged.

Amount = 0 EUR

C. The following waste is also disposed of from Annex I of MARPOL:

- 5 m<sup>3</sup> oily water

The waste was collected from the shore using a truck, which conducted the pumping for 1 hour.

Amount =  $5 \text{ m}^3 * 253.00 \text{ EUR} + 264.00 \text{ EUR}$  (for 1 hour of pumping with the truck) = 1,529.00 EUR

D. Cargo residues from Annex V of MARPOL are also disposed of:

- 3 m<sup>3</sup> other non-hazardous solid waste

Amount = Price according to the offer for further handling outside the port, EUR

E. The waste was disposed of during working hours (weekdays, between 7:00 AM and 3:00 PM), so no surcharge applies.

Amount = 0 EUR

Calculation =  $A + B + C + D + E = 1,605.00 \text{ EUR} + 0 + 1,529.00 \text{ EUR} + \text{Price according to the offer for further handling outside the port} = 3,134.00 \text{ EUR} + \text{price according to the offer for further handling outside the port}$ .

### 3. Example

A. A ship with 37,726 GT is docked in the port for 3 days and disposes of waste as outlined below.

Flat-rate fee for a ship with 37,726 GT in port is  $535.00 * 3 \text{ days} = 1,605.00 \text{ EUR}$ .

B. The following waste is disposed of from Annex V of MARPOL:  
○ 1.5 m<sup>3</sup> Category I catering waste

The quantity of disposed waste from Annex V of MARPOL exceeds the maximum designated storage capacity on the ship (0.5 m<sup>3</sup> is the storage capacity on the ship), so a direct fee is charged.

Amount =  $1.5 \text{ m}^3 * \text{EUR}$  = Actual costs for further handling outside the port, EUR

C. The following waste is also disposed of from Annex I of MARPOL:  
○ 5 m<sup>3</sup> oily water

The waste was collected from the shore using a truck, which conducted the pumping for 1 hour.

Amount =  $5 \text{ m}^3 * 253.00 \text{ EUR} + 264.00 \text{ EUR}$  (for 1 hour of pumping with the truck) = 1,529.00 EUR

D. Cargo residues from Annex V of MARPOL are also disposed of:

○ 3 m<sup>3</sup> other non-hazardous solid waste

Amount = Price according to the offer for further handling outside the port, EUR

Calculation = $A + B + C + D = 1,605.00 \text{ EUR} + \text{Actual costs for further handling} + 1,529.00 \text{ EUR} +$ (Price according to the offer for further handling outside the port) EUR.
---



#### 4. Example

- A. A passenger ship with 37,726 GT is docked in the port for 12 hours and disposes of waste as outlined below.

Flat-rate fee for a passenger ship with 37,726 GT in port for 12 hours is 535.00 EUR.

- B. The following waste is disposed of from Annex V of MARPOL:
- 10 m<sup>3</sup> Category I catering waste

The quantity of disposed waste from Annex V of MARPOL does not exceed the maximum designated storage capacity on the ship, so no direct fee is charged.

Amount = 0 EUR

- C. There are 4,200 passengers on the passenger ship

Amount = 114.00 EUR + 4,000/50 \* 28.00 EUR = 2,354.00 EUR

Calculation = A + B + C = 535.00 EUR + 0 + 2,354.00 EUR = 2,889.00 EUR.
---