Port reception facilities for ship waste
Collecting waste from ships in ports

OVERVIEW

Marine litter and pollution put the marine environment at risk. While a great proportion of marine litter originates from land-based sources, limiting waste discharges from ships also plays an essential role in efforts to preserve marine and coastal ecosystems. Based on international law, EU legislation requires vessels to bring the waste they generate on voyages to waste-reception facilities in port, and obliges EU ports to provide such facilities to ships using the port.

Despite these developments, discharges at sea continue. In January 2018, the European Commission put forward a new legislative proposal seeking to improve the collection of ship waste while ensuring efficient maritime transport operations in ports. Interinstitutional negotiations concluded on 13 December 2018. The final text was adopted by the Parliament on 13 March 2019 and then by the Council on 29 March. The Directive was then signed on 17 April by the presidents of the two institutions and Member States have until 28 June 2021 to transpose it into national law.
Introduction

Discharges of waste into the sea endanger the marine environment, and, indirectly, human health. Their impact ranges from chemical pollution, affecting the acidity of oceans and introducing chemicals into the food chain, to deaths of marine animals that swallow non-degradable debris or plastics. Accumulated marine litter can also affect the natural and economic value of a coastline.

While nowadays in most sea areas, the majority of sources of marine litter are land-based, ships account for about 20% of global discharges into the sea. The European Commission estimates that despite improvements, 60,000 - 300,000 tonnes of ship-generated garbage, plus 31,000 m³ of oily waste and 136,000 m³ of sewage from merchant ships still end up in EU sea waters every year.

Discharges at sea, whether legal or not, are unlikely to be detected by authorities. To limit them, a combined approach has been developed, that on one side seeks to prevent ships from discharging waste and on the other, makes ports provide adequate facilities to collect all sorts of waste from ships at reasonable cost. In January 2018, the Commission put forward a legislative proposal seeking to improve the functioning of ship waste collection in ports and further reduce discharges at sea.

Context

Several types of waste are generated on board ships. These include oily waste, sewage and garbage (such as plastic, food waste, cooking oil, fishing nets) as well as residues of any cargo material left after unloading and cleaning operations. The type and quantity of waste produced depend on the type, size and speed of the ship, its motor and type of fuel used, the length of journey and the waste management practices applied on board.

The international Convention for the Prevention of Pollution from Ships (MARPOL, see box), managed by the International Maritime Organization (IMO), introduced general prohibitions on discharges from ships at sea, and established conditions under which certain types of waste can be discharged.

MARPOL requires its contracting parties, among them all EU Member States, to provide port reception facilities for the waste from ships that is not allowed to be discharged into the sea. Facilities, such as storage tanks, collecting vehicles or vessels, must meet the needs of ships normally using the port, without causing them undue delay.

MARPOL set a comprehensive framework, but did not provide effective enforcement mechanisms. To ensure better enforcement, the EU incorporated MARPOL obligations into its law by Directive 2000/59/EC on port reception facilities for ship-generated waste and cargo residues (the 'PRF Directive'). While MARPOL focuses on operations at sea, the directive deals with operations in port.

International convention for the prevention of pollution from ships (MARPOL) (Convention 1973; Protocol 1978)

MARPOL sets rules to prevent and minimise accidental and operational pollution from ships. It has six technical annexes:

- **Annex I - oil and oily water** (in force since 1983), later amendments introduced double hulls for oil tankers.
- **Annex II - noxious liquid substances in bulk** (1983). No discharge of residues containing the 250 listed noxious substances is allowed within 12 miles of the nearest land.
- **Annex IV - sewage from ships** (2003). Prohibits discharge of sewage. Exceptions: 1. the ship operates an approved sewage treatment plant; 2. the ship discharges comminuted and disinfected sewage, more than three nautical miles from the nearest land; 3. the ship discharges sewage which is not comminuted and disinfected, more than 12 nautical miles from the nearest land.
- **Annex V - garbage from ships** (1988), with a complete ban on the disposal of all forms of plastics into the sea.
- **Annex VI - air pollution from ships** (2005). Limits SOx and NOx emissions in ship exhaust gas, bans deliberate releases of ozone-depleting substances and designates emission control areas with stricter standards for SOx, NOx and particulate matter.
Existing situation

The PRF Directive requires ships to offload the waste they produce during voyages to and between EU ports into disposal facilities in port. For their part, ports have to develop waste-handling plans, and provide adequate reception facilities.

Before arrival, ships have to notify to the port what waste they have on board. Once in port, ships have to unload their waste, unless they have sufficient dedicated storage capacity to keep it until the next port of call. As an incentive to deliver their waste on shore, ships pay a mandatory fee to the port, regardless whether they actually use the waste facilities provided (an indirect fee). It covers oily waste, garbage and usually also sewage. Where other waste-related costs arise, these are covered by a direct fee, based on the quantity and type of waste delivered.

The directive allows Member States and ports to define the fee system in line with their national legislation, to cover the costs of planning for, and collecting and disposing of ship waste. The system has to reflect the ‘polluter pays’ principle and should not encourage ships to discharge waste into the sea. The indirect fee has to cover at least 30% of the cost of the waste-disposal installations and can be differentiated on the basis of ship size, type and category. Member States also have to develop an information and monitoring system, and check compliance with the delivery requirement. Ports can offer reduced fees to ships with good waste management, producing less waste. The port sector has developed a green guide on port waste management, and differentiated port charges rewarding greener vessels are nowadays common practice – in about half of EU ports.

The directive covers all sea-going ships and all EU ports. It is linked to EU rules on waste, on marine environmental policy and on catering waste from international transport. It also ties in with the EU action plan for the circular economy. The directive came into force in December 2002.

As a follow-up to 2006 implementation reports from Member States, the European Maritime Safety Agency (EMSA) carried out visits to verify implementation and prepared a horizontal assessment. Considering that, in general, port reception facilities were adequate, it found that a variety of fee systems had developed across Europe, with the two most commonly used approaches being the ‘no special fee’ system (which includes a delivery right for ship-generated waste, up to a maximum volume), and the ‘administrative fee’ system (giving no waste delivery right and supplemented with direct waste charges). The variety of fee systems apparently incited ships’ masters to engage in ‘PRF shopping’, delivering some waste in one port, and the rest in another or even a third one. Other differences concerned the extent of the mandatory delivery of waste, the use of exemptions and the development of waste reception and handling plans. Moreover, solid data were lacking, due to there being no obligation to report waste volumes.

Reacting to EMSA’s findings, the Institute for European Environmental Policy (IEEP), a think-tank, listed the factors acting as incentives – for a ship entering a port of call – to deliver waste, as follows:

- the price for waste collection services at the port and the applied cost recovery system (the degree of indirect fee);
- the efficiency and user-friendliness of waste collection (one waste operator provides a 'one stop shop' service or the ship’s agent has to deal with several waste operators);
- the design and efficiency of the waste notification system;
- the involvement of the port authority in ship waste-handling (taking responsibility, control and monitoring); and
- the inspection regime in the port, checking on waste delivery.

In IEEP’s view, the vaguely defined cost recovery system made it impossible to create a level playing field for all ports. As a remedy, they recommended defining common criteria and precise rules to create a system which would, as far as possible, remove disincentives to delivering waste to ports.
They pointed at the Baltic Sea no-special-fee system as an example which has resulted in a significant reduction of oily waste discharges.

Since MARPOL has been strengthened through substantial amendments and the directive remained unchanged, EU rules are no longer in line with international ones. For example, the directive does not require ports to provide facilities for waste from ships using exhaust-gas cleaning systems to reduce their sulphur emissions (see box). Some incoherence also exists between the PRF Directive and EU land-based waste legislation: differences in approach can lead to situations when waste segregated on board is not collected separately on land and vice versa.7

Parliament's starting position

Back in September 2012, the Parliament called on the Commission to adopt guidelines to ensure proper care of scrubber waste, asking Member States to provide adequate port reception facilities for this type of waste. It invited the Commission to consider whether scrubber waste could be included in the 'no special fee' principle for ship-generated waste.

In November 2016, the Parliament encouraged Member States to launch more sustainable initiatives, including good information and monitoring systems on waste management, both on ships and in ports.

In January 2018, the Parliament urged the Commission to intensify efforts to combat marine litter, and suggested that financial support could be offered for its collection. With the PRF Directive review, the Commission should promote a harmonised cost-recovery system for garbage in all EU ports. Parliament also asked Member States and local and regional authorities to promote efficient recovery systems for waste from shipping in ports, in particular for plastic waste.

Council starting position

In its conclusions of 25 June 2018 on the EU action plan for the circular economy, the Council recognised the need for effective and sustainable measures to tackle land- and sea-based sources of marine litter, better monitor and reduce its volume. EU marine environment protection and waste-management legislation should be implemented in a coordinated way. It asked the Commission to take steps to address marine litter and, in particular, reduce plastic pollution in the Mediterranean.

Preparation of the proposal

The Commission launched an ex-post evaluation study of the PRF Directive, analysing data from 40 large commercial ports (Panteia/Pwc, May 2015), and presented the findings to the European Parliament and the Council in a March 2016 report. The study affirmed that while volumes of ship-generated waste and cargo residues delivered to EU ports had increased, discharges of waste at sea continued. The diversity of fee systems and the lack of transparency in their structure made it difficult to determine to what degree the fees have really reduced waste discharges at sea. The study recommended simplifying the regulatory framework and reducing the administrative burden on ports and port users.
In reaction, the Commission proposed several soft law measures (alignment of Annex II of the PRF Directive with changes in MARPOL Annex V concerning categorisation of garbage; adoption of interpretive guidelines and asking EMSA to develop a common information and monitoring system, building on the existing database) and announced a review of the PRF Directive.

The Commission regularly consulted stakeholders through the European Sustainable Shipping Forum. Between July and October 2016, it also organised an open public consultation, followed by a targeted consultation of port stakeholders. Consultations confirmed that discharges at sea were linked to the lack of incentives to deliver waste and to weak enforcement. Moreover, inconsistencies in definitions and exemptions were seen as sources of unnecessary administrative burden.

The supporting study for the impact assessment (Ecorys/COWI, June 2017) updated waste delivery data and, using an approximation model, calculated ‘the waste gap’ between the waste expected and the waste actually delivered. The Commission impact assessment (IA), having discarded the options of an EU discharge prohibition and of full alignment with MARPOL, concluded that the directive should be aligned with MARPOL as far as feasible, with added focus on marine litter.

The initial appraisal of the IA by the European Parliamentary Research Service finds that it is generally coherent and clear, but points out that the coherence with related EU policies is not sufficiently developed. It notes that the proposal went against the IA findings by including fishing and recreational vessels over 45 metres in the advance waste notification requirement – a measure discarded by the IA due to the considerable burden for the vessels concerned.

**The changes the proposal would bring**

The proposal comes under the Regulatory Fitness Programme (REFIT), devised to simplify and clarify existing EU legislation. It is included in the Commission Work Programme 2016 and part of the EU strategy for plastics in a circular economy and linked to the legislative proposal on reducing marine litter. It would repeal the current PRF Directive, replace it with a new directive, and further align the EU regime with MARPOL. The Commission proposes to:

- harmonise and update definitions and norms
  - the directive would cover all waste from ships, including residues from exhaust gas cleaning systems and passively fished waste (collected in nets during fishing operations);
- ensure availability of adequate port reception facilities
  - by requiring separate collection of waste in ports and by consulting waste reception and handling plans with stakeholders;
- provide effective (cost) incentives for delivery of waste in ports
  - by a cost recovery system based on a fixed indirect fee for garbage and passively fished waste, irrespective of quantities delivered. The fee could reflect the category, type and size of ship and the type of traffic. Other waste and cargo residues would be covered by a direct fee, based on the type and quantities delivered. Ships that can demonstrate sustainable on-board waste management would pay a reduced fee (the ‘green ship’ concept). Fees would have to be fair, transparent, non-discriminatory and clearly communicated to port users;
- enforce the mandatory delivery requirement
  - a waste receipt issued upon waste delivery would have to be recorded electronically, except in small unmanned ports and remotely located ports. Exceptions from waste delivery – based on sufficient storage capacity – would be limited, and PRF inspections integrated into the port-state control regime. Ships in scheduled and regular traffic would be exempted from mandatory delivery;
adapt rules for fishing vessels and recreational craft

these would have to pay the indirect fee, but only vessels and craft of 45 metres and above would be subject to advance reporting and waste receipt recording.

The Commission would define how to calculate the sufficient storage capacity and specify the 'green ship' concept. The proposal would bring changes to Directive 2009/16/EC on port state control, concerning the inspections regime, and to Directive 2010/65/EU on reporting formalities for ships (under review), as regards the management of electronic advance waste notifications. Operation of waste reception facilities being a service provided by a port to its users, the proposal builds on the Port Services Regulation, adding transparent cost structures and extending its scope to all EU ports (while the regulation applies only to the trans-European transport network ports).

Compliance costs include investment in new facilities or upgrades of existing ones, running separate collection of waste, adjustments to the cost recovery systems as well as administrative costs related to enforcement and management of exemptions regimes. While these costs would mostly be borne by ports and competent authorities, the Commission expects them to be limited and counterbalanced by the positive environmental impact and reduced administrative burden.

Advisory committees

The European Economic and Social Committee (EESC) in its opinion of 23 May 2018 (rapporteur: Antonello Pezzini, Employers – Group I, Italy) supports the Commission's proposal and wants regional agreements on marine pollution included in EU policies for the Euromed and the Baltic regions.

The European Committee of the Regions (CoR) in its opinion on 'Clean ports, clean seas' of 10 October 2018 (rapporteur: Spyros Spyridon, EPP, Greece) warns against the potential impact of the directive on regional ports, in particular in areas bordering on third-country ports, which will not be covered by the directive. The increased administrative costs for EU ports, when passed on to port users, could affect the competitiveness of such regional ports. The CoR also asks Member States to set up a single framework of penalties, to prevent unfair competition and 'port-shopping'.

National parliaments

While no national parliament submitted a reasoned opinion within the subsidiarity deadline (19 March 2018), Spain and Romania sent contributions.

Stakeholders' views

Seas at risk, a group of environmental NGOs, recommended already in 2011 to apply a 100 % indirect fee and a mandatory waste discharge for all vessels, carry out individual ship waste inspections to identify polluters, and provide reception facilities for fishermen to dispose of their old gear.

Ports, represented by the European Sea Ports Organisation (ESPO), were against the fixed indirect fee allowing ships to deliver unlimited amounts of garbage. Instead, they proposed to limit the volume covered by the indirect fee, exclude dangerous waste (which requires special and costly treatment) and allow ports to charge a premium for waste delivered outside normal port operating hours. ESPO would maintain the application of reduced fees for 'green ships' as voluntary, regarding mandatory fee reductions as an unreasonable interference with individual port approaches.

The European Community Shipowners’ Association (ECSA) expressed concerns related to short sea shipping vessels, which would have to pay the indirect fee in many ports, while delivering no waste. They also proposed to exempt all smaller ports from the obligation to deliver a waste receipt. Furthermore, ECSA asked for guidance on fee differentiation, considering that profit margins for the fees should not be excessive. They disagreed with the idea that the Commission should define the 'green ship' concept, regarding this as a prerogative of IMO.
Academic views

Currently, most EU ports apply a single fee to cover the delivery of both oily and garbage waste, based on the ship size (in gross tonnes). To determine to what extent other known factors affect waste generation, Pérez, Gonzáles and Jiménez examined the relevance of the ship typology, age and average speed, the distance from the last and to the next port of call and the people on board. From a sample of about 5 000 ships, they conclude that while the generation of oily waste most depends on the ship size, the main factor in the volume of garbage generated is the number of people on board – and consider it useful to establish a differentiated fee for each type of waste.

Legislative process

The European Commission published the proposal on 16 January 2018.

In Council, the Working Party on Shipping discussed it between February and May 2018. Changes agreed concerned a derogation for Member States with no ports and no ships flying their flags, a definition of passively fished waste, a shift from the inspection regime of port state control to a risk-based approach, and the inclusion of revenues from waste management schemes and funds into the cost recovery system. The Transport Council of 7 June 2018 adopted a general approach.

In the European Parliament, the Committee on Transport and Tourism (TRAN) leads on the file, with the Committee on Environment, Public Health and Food Safety (ENVI) associated under Rule 54, while the Committee on Fisheries (PECH) has also given an opinion. The TRAN rapporteur Gesine Meissner (ALDE, Germany) presented her draft report on 10 July 2018, proposing to include waste from ship repair activities and ballast water management, introduce an obligation to report lost fishing gear and finance the collection of passively shipped waste from public funds or waste management schemes. Furthermore, she would exempt very small ports and offer reduced fees to short sea shipping vessels.

The TRAN committee adopted the legislative report on 9 October 2018 (46 votes in favour, 2 against and 0 abstention) and gave the rapporteur a mandate to start interinstitutional negotiations. The report strengthens the ‘polluter pays’ principle, affirming that the indirect fee should cover garbage and passively fished waste in quantities normally delivered with respect to the category, type and size of the ship. It also maintains the mandatory application of reduced fees for all ‘green ships’.

Interinstitutional negotiations concluded on 13 December 2018. It has been agreed that ships will have to pay the indirect fee, irrespective of delivery of waste. It will cover all ship waste except for cargo residues and waste from scrubbers. Additional charges can be imposed if the volume of waste delivered exceeds the maximum dedicated storage capacity of the port. Small non-commercial ports, with low or seasonal traffic, do not have to prepare waste reception plans if their port waste collection is integrated into the municipal waste-handling system. Ships engaged in short sea shipping, as well as ‘green ships’, are entitled to reduced port fees (rules to be set in an implementing act). Member States will have to inspect at least 15% of ships calling annually at their ports. The agreed text was endorsed by Member States’ Ambassadors to the EU (Coreper) on 19 December 2018 and by the TRAN committee on 11 January 2019. It was adopted by the Parliament in plenary on 13 March 2019 (by 596 votes in favour, 16 against and 7 abstentions) and then by the Council on 29 March 2019. After its formal signature on 17 April, the final act was published in the Official Journal of the European Union on 7 June and enters into force twenty days later, on 28 June. Member States have two years to ensure their national law complies with the adopted rules, i.e. by 28 June 2021.

EP SUPPORTING ANALYSIS


OTHER SOURCES

*Port reception facilities for the delivery of waste from ships*, European Parliament, Legislative Observatory (OEIL).


ENDNOTES

1 The ‘notification’ rule does not apply to fishing vessels and recreational craft which can carry a maximum of 12 passengers.

2 Ships engaged in scheduled traffic with frequent and regular port calls may be exempted from the mandatory delivery.

3 The ‘at least 30% rule’ does not apply to fishing vessels and recreational craft which can carry a maximum of 12 passengers.

4 Waste is only part of the scheme, next to energy consumption, air and water quality and on-shore power.

5 Including fishing vessels and recreational craft. Exceptions: warships, naval auxiliary or other ships owned or operated by a state and used for non-commercial government service.

6 With most ship waste being handled by private operators, the adequacy of facilities could not always be assessed. Private operators were involved in handling ship waste in all 40 ports visited; in 31, they did all ship waste-handling activities.

7 Under MARPOL, clean and food-contaminated plastics are disposed of together on board ships. Clean plastics which get food-contaminated on board are considered international catering waste, sent to an incinerator or for burial on shore. However, catering waste generated in the EU including food-contaminated plastics can, in principle, be recycled.

8 Areas where the EU regime, due to its focus on ports, will continue to differ from MARPOL: adoption of waste reception and handling plans; development and operation of cost recovery systems; mandatory reporting of information from the advance waste notification and the waste receipt; inspection regime; exemptions for ships in scheduled traffic.

9 This section aims to provide a flavour of the debate and is not intended to be an exhaustive account of all different views on the proposal. Additional information can be found in related publications listed under ‘EP supporting analysis’.


11 With Germany voting against.

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eprs@ep.europa.eu (contact)

www.eprs.ep.parl.union.eu (intranet)

www.europarl.europa.eu/thinktank (internet)

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Second edition. The 'EU Legislation in Progress' briefings are updated at key stages throughout the legislative procedure.