

**Open-ended Working Group of the Parties to
the Montreal Protocol on Substances that
Deplete the Ozone Layer
Thirty-second meeting
Bangkok, 23–27 July 2012
Agenda item 12
Other matters**

Draft decision on trade of controlled substances with ships sailing under a foreign flag

Submission by the contact group on the treatment of ozone-depleting substances supplied to ships

Explanatory note

1 Introduction

Ozone-depleting substances (ODS) are used as consumables for various uses on different means of transport, for example as refrigerants on cargo or fishing ships. While ODS find multiple uses on board ships, their main application by volume is as a refrigerant. Unlike other uses, such as fire-extinguishing systems, foams blown with ODS or solvent uses, unsealed marine refrigeration equipment needs to be maintained and re-filled on a regular basis.

The question arose as to how these uses are to be addressed by the parties to ensure the appropriate transparency and compliance in the context of the reporting and licensing requirements under the Montreal Protocol. The main question was whether deliveries to ships sailing under a foreign flag need to be considered as import or export for the purpose of the Montreal Protocol.

Decision XXIII/11 asked the Ozone Secretariat, the Technology and Economic Assessment Panel and the parties to provide further information to facilitate an informed discussion. The information provided by the Ozone Secretariat and the parties (UNEP/OzL.Pro.WG.1/32/2 and UNEP/OzL.Pro.WG.1/32/INF/4) shows that parties take different approaches.

2. Potential implications

The different approaches taken by parties have numerous implications.

2.1.1 Data discrepancies

Data discrepancies result when one party reports exports to a vessel, while the flag State of the vessel does not. Such discrepancies are observed at present and, according to the data provided by Technical Options Committee on Refrigeration, Air Conditioning and Heat Pumps (RTOC), potentially affects several thousand tonnes of ODS annually.

2.1.2 Risks for phase-out plans and the presence of banks

Parties are put at risk when the national ozone unit of the importing party is not aware of the quantities. Hence these quantities would possibly not be addressed in the party's phase-out strategy in cases where that was necessary. At a certain point in time, the party might be confronted with an unexpectedly large increase to ODS banks.

2.1.3 Illegal trade and trade with non-parties

The different approaches open a loophole for illegal trade. It would be simple for a vessel to take ODS on board while declaring them as consumption on board. If the party responsible for the vessel was not monitoring the ODS stocks appropriately, they could be unloaded anywhere and undermine the phase-out strategies of third parties. Experiences of the European Union suggest that ODS are often taken on board vessels and declared as consumption on board. However, in practice these containers are often subsequently handed over to other vessels that remain on the high seas. This appears to happen in particular within fishery fleets.

In the same way as described above, ODS could be purchased by vessels but eventually be unloaded in third countries that need to be considered as non-parties for such trade. This would undermine the control measures of the Montreal Protocol.

3 Magnitude of the problem

In its 2012 progress report the Technical Options Committee on Refrigeration, Air Conditioning and Heat Pumps provided information on the estimated refrigerant bank and related emissions.

	CFC	HCFC	HFC	Total ODP#	Total GWP
Refrigerant bank (tonnes)	1 250	26 400	4 480	2 702	67 018 600
Approximate refrigerant emissions (tonnes/year)	500	7 920	570	936	20 407 700

A typical refrigerant charge for vessels above 100 gross tonnage was found to be between 100 and 500 kg for direct systems, and between 10 and 100 kg for indirect systems. The annual refrigerant leakage rate was estimated to be as high as 20 - 40 per cent.

Experience gained in the European Union and communicated under decision XXIII/11 suggests that some of these figures might be even higher. Between January 2010 and August 2011, about 2,000 deliveries to ships under a non-European Union (EU) flag were licensed. While no thorough analysis of the different deliveries was carried out, the general observation is that fishing vessels account for the majority of it. Apparently, large amounts are also consumed by reefers and cruise ships. Individual deliveries to fishing vessels can reach several tonnes and 225 of these deliveries concerned quantities larger than 1 tonne. It was also observed that a number of ships call at EU ports several times a year requesting large volumes of ODS. This suggests that individual ships could have emission rates higher than anticipated by RTOC, transfer refrigerant to other ships (possibly even to ships of another flag State) or unload the refrigerant in other ports. Considering also the information provided by the Technology and Economic Assessment Panel, it appears unlikely that such volumes can be consumed for refrigeration purposes on a single ship which could suggest that these volumes are traded illegally, posing a threat to the success of HCFC phase-out by these parties.

4 Relevant international law

Other provisions of international law need to be considered in this discussion, most importantly maritime law and customs law. To facilitate the enforcement of the Montreal Protocol coherence with other international law would be very beneficial.

4.1 Montreal Protocol

4.1.1 Definition of import and export

The Montreal Protocol does not provide a definition of import and export and apparently these terms are interpreted differently amongst parties. In decisions IV/14 and IX/34, parties decided how cases of transit, trans-shipment and imports for re-exports shall be handled.

4.2.2 Recommendation of the Ad-Hoc Group on reporting

As outlined in the Secretariat's paper, the issue of servicing ships sailing under a foreign flag was already in addressed in the early 1990s. The first report of the ad hoc group on reporting recommended that "the quantities of controlled substances used for refilling refrigeration and fire-extinguishing systems in ports should be included in the consumption figure of the country with jurisdiction over the port."

The Ozone Secretariat highlighted that the ad hoc group addressed only the issue of refilling in ports but did not consider sales unrelated to refilling. However, nowadays refilling rarely takes place in ports. The length of time a vessel stays in port has reduced significantly and no longer allows for maintenance work to be performed. It appears to have become a common practice for the actual maintenance of refrigeration equipment on board vessels to be carried out by the on-board technician while on the high seas. The ship is solely purchasing the refrigerant in the port State.

4.2 Kyoto Convention

4.2.1 Definition of import, export and customs territory

Since the Montreal Protocol does not provide its own definition of imports and exports, relevant international customs law should be taken into account. While Parties may define this individually in the context of domestic legislation, at the international level the World Customs Organization (WCO) defines imports and exports as follows:

- Exportation: "The act of taking out or causing to be taken out any goods from the Customs territory"
- Importation: "The act of bringing or causing any good to be brought into a Customs territory"

The International Convention on Simplification and Harmonization of Customs Procedures, also known as the Revised Kyoto Convention, provides, among others, the different procedures under which imports and exports can take place.

Furthermore, as highlighted in the response of the Secretariat of the WCO to the request of the Ozone Secretariat, the Kyoto Convention addresses the issue of so-called "stores for consumption". These are defined as:

- "[...] goods necessary for the operation and maintenance of vessels, aircraft or trains including fuel and lubricants but excluding spare parts and equipment; which are either on board upon arrival or are taken on board during the stay in the Customs territory [...]"

This matches the purpose of the ODS delivered to ships. While stores benefit from certain reliefs, they are not excluded from the import or export definition.

The secretariat of WCO cited Standard 15 of the Convention, indicating:

- Vessels and aircraft which depart for an ultimate foreign destination shall be entitled to take on board, exempted from duties and taxes ... stores for consumption necessary for their operation and maintenance during the voyage or flight having regard also to any quantities of such stores already on board.

This puts a certain quantitative limit under which such movements can benefit from the applicable simplifications and indicates that any larger delivery shall be subject to all applicable conditions at customs.

4.3 Maritime law

The responsibility of the flag State for vessels sailing under its flag is outlined in several pieces of international maritime law, including the United Nations Convention on the Law of the Sea (UNCLOS), International Convention for the Prevention of Pollution from Ships (MARPOL) and more recently the Hong Kong Convention.

4.3.1 UNCLOS

The United Nations Convention on the Law of the Sea (UNCLOS) is the principal international maritime law. The nationality of ships is defined in Article 91 as “[...] Ships have the nationality of the State whose flag they are entitled to fly. There must exist a genuine link between the State and the ship [...]”. The primary responsibility of flag States for the vessels sailing under its flag is defined in Article 92 on the status of ships as “[...] Ships shall sail under the flag of one State only and ... shall be subject to its exclusive jurisdiction [...]”.

4.3.2 MARPOL

Regulation 10 of Annex VI to the International Convention for the Prevention of Pollution from Ships defines Port State Control on operational requirements as follows:

- A ship, when in a port or an offshore terminal under the jurisdiction of another party, is subject to inspection by officers duly authorized by such party concerning operational requirements under this Annex, where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of air pollution from ships.

Regulation 12 of Annex VI mandates all ships over 400 gross tonnes to keep a record book of all equipment containing ODS which is not permanently sealed and maintain a record of all supply, discharges to atmosphere and land-based reception facilities, repair or maintenance and recharging of such equipment.

5. The EU proposal

When discussing how to handle such trade several objectives need to be considered to reach a sustainable solution. These are:

- Compliance with the provisions of the Montreal Protocol and earlier decisions of the parties
- Consistence with related international law such as the Kyoto Convention on harmonization of customs procedures, the international law of the seas, MARPOL and other provisions of international maritime law
- Any solution shall not affect existing baselines for HCFC
- Any solution shall not retroactively bring any party in non-compliance
- This decision shall not preclude parties from applying their domestic legislation on ozone-depleting substances as long as those requirements do not prevent other parties from applying their own legislation

The proposal by the European Union takes the approach that previous advice given to the parties by the ad hoc group and past practice should be adhered to. However, this would need to be complemented to cover cases where the actual servicing is taking place outside ports and where the delivered volumes exceed reasonable demand for servicing on board of the ship.

In this regard the key elements of the proposal are:

- To consider servicing as domestic consumption of the port State whether or not it takes place in the port provided that the quantity does not exceed reasonable demand
- In case where quantities are ordered by ships which exceed reasonable demand, those should be considered as export to the flag State whilst putting measures in place that facilitate flag States to manage these volumes or prevent such deliveries
- That even in the cases where reasonable demands are exceeded those shall not be accounted for in the calculation of the consumption of the flag State
- To request the Technology and Economic Assessment Panel to provide estimates on the demand of flag States and on reasonable quantities per ship type

The exact procedure on how the Ozone Secretariat needs to do the calculations that would ensure that the quantities appear in the accounting but are not considered for the consumption calculation in the flag State, should be defined in an annex to the final decision. These details should be specified after consultation with the relevant experts on data reporting in the Ozone Secretariat to ensure that the most practicable way is proposed. The annex should in particular clarify:

- How to avoid double counting
- At what stage of the reporting process the Ozone Secretariat would need to do the calculations, and
- How to ensure transparency and traceability

Draft decision

[The Twenty-Fourth Meeting of the Parties decides:

Considering that Article 91 of the United Nations Convention on the Law of the Sea (UNCLOS) defines the nationality of ships in the following terms: “[...] Ships have the nationality of the State whose flag they are entitled to fly. There must exist a genuine link between the State and the ship [...]”,

Considering also that Article 92 of the Convention indicates that “[...] Ships shall sail under the flag of one State only and ... shall be subject to its exclusive jurisdiction [...]”,

Considering further that the World Customs Organization defines exportation as “The act of taking out or causing to be taken out any goods from the Customs territory” and importation as “The act of bringing or causing any good to be brought into a Customs territory”,

Considering that while under the International Convention for the Prevention of Pollution from Ships (MARPOL), ships can be subject to port State controls, the main responsibility for regulation and enforcement concerning the use of ozone-depleting substances on a ship lies with the flag State,

Considering also that under MARPOL hydrochlorofluorocarbons may still be used in new ships until 2020 but that dependency on hydrochlorofluorocarbons will steadily decline,

Considering further that annex VI to MARPOL requires certain ships to keep record books which, inter alia, indicate the quantities of ozone-depleting substances supplied to and discharged by the ships,

Considering that the collection of the data necessary to evaluate the use of controlled substances on ships will not be possible in a short period of time,

Considering also the recommendation of the ad hoc group of experts on reporting of data that the quantities of controlled substances used for refilling refrigeration and fire-extinguishing systems in ports should be included in the consumption figures of the countries with jurisdiction over the ports where the refilling of such systems occurs,

Considering further that the requirements of the Montreal Protocol should be consistent with those of other provisions of international law in order to facilitate their enforcement, while at the same time acknowledging that the parties have the right to different interpretations if necessary,

Acknowledging that some parties need more information about installed quantities of controlled substances on board ships for their sound management,

Acknowledging that parties shall not be precluded from applying their domestic legislation on trade in ozone-depleting substances as long as that legislation does not prevent other parties from applying their own legislation as well as the present decision,

[1. To clarify that, for [the application of the recommendation of the ad hoc group of experts on reporting of data on] the reporting of controlled substances used to service equipment on board ships sailing under foreign flags [in ports of parties other than the flag States], deliveries of controlled substances to a ship qualify as servicing and as consumption of the port State even if the actual servicing is not taking place in the port, [provided that the quantity delivered does not exceed a reasonable quantity typically used to service the equipment on board the given ship type as specified by the Technology and Economic Assessment Panel for the ship type in question;]]

[2. Also to clarify that transfers of [recovered] [waste] [used] controlled substances from ships sailing under foreign flags to appropriate facilities in ports of parties other than the flag States shall be treated accordingly, provided that the quantity of the substances transferred does not exceed the reasonable quantity referred to in paragraph 1 of the present decision;]

[3. Further to clarify that controlled substances supplied to or coming from foreign flagged ships [in unreasonable quantities] and not covered by paragraph 1 [or 2] of the present decision are to be considered as imports and exports for ship servicing and shall be reported separately under Article 7, indicating the flag States concerned and the respective quantities;]

[4. To request the Ozone Secretariat to add the exports reported pursuant to paragraph 3 of the present decision to the data reported by the flag State following the procedure specified in the annex to the present decision, but to disregard those quantities in the calculation of the consumption of the flag State for the purpose of Article 2 F of the Montreal Protocol;]

5. Also to request the Ozone Secretariat to inform the parties concerned about any changes made to their data pursuant to paragraph 4 of the present decision by including such information in the data it provides under decision XVII/16;

6. To invite parties to make use of the informal prior informed consent (iPIC) mechanism to provide information about deliveries not covered by paragraphs 1 or 2 of the present decision prior to the completion of such deliveries and to invite parties participating in the iPIC mechanism to indicate in their licensing sheets in advance whether or not they wish to receive such deliveries;

7. To request the Technology and Economic Assessment Panel to provide together with its 2013 progress report a special report including the following information:

(a) A categorization of ship types and, per ship type, estimates of typical refrigerant charges, including a reasonable servicing demand, and to update that information in the light of new information as appropriate but at least every five years;

(b) Information on the controlled substances still used in the construction of ships, where they are used, technical and economic information on the available environmentally benign alternatives to such substances and similar information for replacements for existing equipment in ships, in particular in the fisheries sector;

(c) An updated version of the information provided by the Technology and Economic Assessment Panel in its previous progress reports on transport refrigeration in the maritime sector;

8. To request the Technology and Economic Assessment Panel to provide in its 2015 progress report for each party an estimation of the quantities of controlled substances needed on board ships sailing under its flag for the period from 2016 to 2020 and to update it every five years and to advise the Panel that where no data is provided by parties, the estimate of the quantities of ozone-depleting substances needed for ship servicing shall be based on the best available data on the ship fleets of the parties;

9. To request parties to collect data on the quantities, types and uses of controlled substances brought on board and taken off ships, to the extent possible on the basis of the record book on ozone-depleting substances provided for in annex VI to MARPOL, and to provide such data to the Technology and Economic Assessment Panel by 1 January 2015;

10. To invite parties manufacturing ships to refrain from using controlled substances and to consider environmentally benign and energy-efficient alternatives wherever they are available;

11. To invite parties that are contracting parties to annex VI to MARPOL to exercise their right to monitor the conditions under which controlled substances are kept on board ships, the quantity of such substances and the associated records.

Annex

Calculation of the consumption of flag States referred to in paragraph 4]

ADVANCE