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**Twenty-Third Meeting of the Parties to the  
Montreal Protocol on Substances that  
Deplete the Ozone Layer**  
Bali, Indonesia, 21–25 November 2011  
Item 4 (e) of the provisional agenda of the preparatory segment\*  
**Treatment of ozone-depleting substances used to service ships**

**Additional information on ozone-depleting substances used to  
service ships**

**Note by the Secretariat**

1. During the thirty-first meeting of the Open-ended Working Group, held in Montreal, Canada, from 1 to 5 August 2011, Belize, Saint Lucia, Marshall Islands, Trinidad and Tobago and Saint Vincent and the Grenadines submitted a draft decision intended to develop more information and to provide clear guidance to the parties on the treatment of ozone-depleting substances used to service ships.
2. During the discussion of this issue in a contact group, it was agreed that it would be useful to gather more information from the parties on the matter, and to present that information in the form of an information document. To facilitate the gathering of this information, the Secretariat worked directly with parties and also obtained the assistance of the coordinators of the OzonAction Programme regional networks.
3. The present note has two annexes. The first is divided into two chapters. Chapter I reproduces the draft decision as it emerged from the contact group after the initial discussions. While the present note and its annexes are available in English only, the draft decision itself can be found in the six official languages of the United Nations as draft decision XXIII/[K] in chapter I of document UNEP/OzL.Conv.9/3-UNEP/OzL.Pro.23/3.
4. Chapter II of annex I sets out submissions by parties on their treatment of ozone-depleting substances used to service ships. As at 1 November 2011, the Secretariat had received comments from 18 parties (including the European Union on behalf of its 27 member States). Annex II consists of a document on the issue submitted by the International Maritime Organization.
5. The annexes to the present note have been reproduced without formal editing.

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\* UNEP/OzL.Conv.9/1-UNEP/OzL.Pro.23/1.

## Annex I

### Treatment of ozone-depleting substances used to service ships

#### I. Draft decision XXIII/[K]: Treatment of consumption [and reporting under the Montreal Protocol on Substances that Deplete the Ozone Layer on the consumption] of ozone-depleting substances used to service ships, including [flag of convenience ships] [ships from other flag States]

##### Submission by Saint Lucia, Belize, Marshall Islands, [Bahamas,] [United States of America,] Trinidad and Tobago, and Saint Vincent and the Grenadines

*The Twenty-Third Meeting of the Parties decides:*

*Taking into account* that Article 4B of the Montreal Protocol on Substances that Deplete the Ozone Layer requires parties to *establish* and implement systems for licensing imports and exports to phase out the [production and] consumption of Annex A, B, C, and D ozone-depleting substances,

*Taking into account also that* consumption is defined under the Montreal Protocol as production plus imports minus exports,

*[Acknowledging that* flag of convenience countries have the authority and responsibility to enforce regulations over vessels flying their flags, including those relating to inspection, certification and the issuance of safety and *pollution* prevention documents],

*Recognizing that* ships use equipment and technologies containing ozone-depleting substances [onboard during operations in *national* and international waterways],

*[Mindful that* many parties registered as flag States are unsure of the reporting requirements for ships under the Montreal Protocol,]

*[Concerned that* [differing party interpretations of the term “exports” under the Montreal Protocol may result in the miscalculation of consumption or disparities in the reporting of consumption] [there are [reported] cases of ozone-depleting substances supplied to service ships [with those exports being treated under the data reporting rules of Article 7 of the Montreal Protocol], including flag ships, that may be reported *as* exports under the regulations of the parties supplying the ozone-depleting substances, but not as consumption either by the parties to which the ships belong or by the parties under whose flags the ships sail],

1. To request the Ozone Secretariat to prepare a [study] [document] that reviews current ozone-depleting-substance data *reporting* under Article 7 of the Protocol with regard to sales to ships, including ships from other flag States, for onboard servicing and other onboard uses, including on how parties calculate consumption with regard to such sales, [and presents issues relevant to the treatment of the consumption of ozone-depleting substances used to service ships, including flag ships] for submission to the Open-ended Working Group at its thirty-second meeting to enable the Twenty-Fourth Meeting of the Parties to take a decision on the matter;

2. [To include in the [study] [document] any guidance to parties on ozone-depleting-substance reporting requirements *previously* provided to the parties regarding sales to ships for onboard uses;]

3. [To request that the [study] [document] be made available to all parties at least six weeks before the thirty-second meeting of the Open-ended Working Group];

4. To request parties to provide to the Ozone Secretariat, [by 1 April 2012,] information on [the current system used, if any,]) how to regulate and report on ozone-depleting substances supplied for the purpose of servicing ships, including ships from other flag States, for onboard use, on how they calculate consumption with regard to such ozone-depleting substances, and on any relevant cases in which they have supplied, imported or exported such ozone-depleting substances[;] [.]

5. [To request that, for the purposes of calculating consumption as defined in Article 1 of the Protocol, sales of ozone-depleting substances to a ship docked in a party’s port for use onboard that ship be considered part of that party’s production rather than its export.]

## II. Comments received by the Secretariat on the treatment of ozone-depleting substances used to service ships

### A. Comments submitted by Argentina

We have to differentiate exports of refrigerants to be used for equipment upkeep, from those operations where a local refrigeration service makes repairs on board in port. In this way, changes of ownership of the gases in containers, receptacles for transportation or storage are included in the concept of “sale” or “transfer”, equivalent to the concept of placing on the market of EU legislation.

Therefore, according to the Argentine law, the supplies to foreign flag vessels are considered as exports for consumption. Therefore, for such operations, stakeholders must apply for an export license. Customs authorities will enable the delivery of ODS without the presentation of the corresponding license.

The sale or transfer of fluorinated gas is defined as the change of ownership of a fluid with or without financial implications, respectively. When the refrigerant is used for loading (charging) or maintenance of equipment by enabled companies or refrigeration professionals at the local ports, no sale or cession is considered. These operations have been traditionally considered as “*use*” according to the European legislation (Regulation No 1005/2009, item 21, article 3) and not as sale or transfer.

In the annual report to the Secretariat, the Republic of Argentina includes all the exports indicating the country of destination. These are specifically indicated in the report’s comments.

As no license is required for the ODS used by technicians to service ships in ports, there is no statistical on the subject. The following is the corresponding data of ODS exported (Normally in 57 kg cylinders) to foreign flag vessels for the indicated years:

- 2008: CFC-12 93.2 kg and HCFC-22 14,353.60 kg
- 2009: HCFC-22 7,823.00 kg
- 2010: HCFC-22 7,661.02 kg

### B. Comments submitted by Australia

Australia does not require individuals or businesses to obtain a license to import or export HCFCs if:

- The HCFCs are on board a ship or aircraft; and
- The ship or aircraft has air conditioning or refrigeration equipment; and
- The HCFC is used exclusively for meeting the reasonable servicing requirements for the ship or aircraft when it is engaged in a journey between:
  - o A place in Australia and a place outside Australia, or
  - o Two places outside of Australia

HCFCs supplied to meet the service requirements of ships or aircraft comes from Australia’s domestic HCFC allocation – the HCFCs supplied to ships or aircraft are not treated as an export. The supply of HCFC must be provided by a business licensed to supply HCFCs.

Australia would have concerns if HCFC supplied to Australian or Canadian ships at foreign ports was deemed to be an export to Australia. This would impact on our quota systems and may lead to non-compliance as our existing domestic controls do not extend to licensing and quota for the normal servicing requirements of ships or aircraft plying their trade internationally.

There are a number of factors that would indicate that supply for export is highly unlikely in Australia.

Firstly the price of HCFCs in Australia, compared with other countries in the region, means it is less likely that Australian HCFCs would be used to meet export demands.

The second key factor is the existing supply controls, where only authorised businesses are able to acquire, store and dispose of fluorocarbon refrigerants in Australia. The authorisation provides

greater capacity to apply compliance checks on the range of requirements that authorised businesses must meet. One such requirement is that businesses must keep records of the refrigerants bought, sold and returned. The records must be made available to the regulator on request. We run a regular audit program, where around 6,000 authorisation holders, of the 18,000 in total, are audited each year. 'Over supply' to ships is likely to become apparent through this process.

### **C. Comments submitted by Canada**

In Canada, there is an exemption in our domestic regulations for foreign ships that wish to refill or service their refrigeration, air-conditioning or fire extinguishing equipment in a quantity that does not exceed the total capacity of the equipment. Therefore, a permit would not be required should a foreign ship at a Canadian Port be required to refill or service their existing equipment with an ozone-depleting substance.

This is treated as a domestic sale, not as an export activity. As such, in the case of HCFCs, the company importing or manufacturing the virgin ozone-depleting substance as per its Canadian allowance would have already counted the substance towards its consumption. In the case of other substances, only non-virgin substances could be used.

Like Australia, Canada would have concerns if HCFCs supplied to a Canadian ship would be considered an export as it would impact our allowance/quotas/permit framework. Virgin HCFC allowances and import permits are limited to specific companies and not extended to any companies that were not already granted such allowances. Importing HCFCs without a proper allowance and permit would be in violation of our domestic regulations.

### **D. Comments submitted by Barbados**

As I understand it, this issue only emerged as a consequence of the decisions of the EU to account for the sale of ODS to ships as exports to the flagged country, and therefore is expected to be counted as part of the country's domestic consumption.

Barbados' historical monitoring and reporting of ODS consumption has never accounted for substances sold to ships flagged in Barbados. Accordingly to treat such under a quota system that was determined solely by domestic (on island) consumption would have a significant impact on the capacity to extend the useful life of available HCFC using infrastructure and, in our opinion, is contrary to the consideration accorded to developing countries under the Montreal Protocol. We would support a rational multilateral approach to the resolution to this matter that does not compromise the ability and capacity of our businesses and industries to derive the fullest possible utility from the use of HCFCs even as we are addressing the obligatory phase-out and transition processes.

### **E. Comments submitted by Cook Islands**

Consumption, when reported to the NOU is not differentiated between ships or land-based refrigerators.

Gas used to service ships is included in that reported from servicing companies as local consumption. But apart from this there is no official recording or reporting of ODS sold to ships.

In general, gas is supplied to local ships, so it is consumed in-country. The grey area is yachts. Some have their own gas, some buy while on Rarotonga but these quantities are very small, only a few kg's per year.

### **F. Comments submitted by the European Union**

#### 1) Overall legal situation:

In the EU all imports and exports of ODS (substances, as well as products and equipment containing or relying on ODS) are prohibited. This applies to all types of customs procedures (e.g. including transit or trans-shipments). Where exemptions to this prohibition apply, the shipment is subject to licensing. There is a minor exemption related to the licensing of certain transit trades but this is not relevant for our discussion.

#### 2) Movements of means of transport without transfer of ODS:

Movements of foreign means of transport are not considered as import or export and thus not subject to licensing or to import/export restriction if:

- They carry ODS for use onboard the means of transport, and

- The ODS or the means of transport is not imported into the European Union, and
- The means of transport benefits from the exemptions applicable for temporary admission under the relevant international conventions

(in short: a foreign ship/aircraft calling an EU port/airport is not affected provided that it leaves again unchanged)

3) Movements of ODS from EU to non-EU means of transport:

For the practical implementation we currently distinguish between servicing and supply. This differentiation is made to accommodate the recommendation of the ad-hoc expert group on reporting of 1990.

(a) Servicing is considered as domestic consumption and not subject to licensing or reporting. In these cases an EU based company is executing the maintenance work onboard the means of transport bringing its own ODS. In these cases the conditions for use of ODS under EU law apply (e.g. only non-virgin HCFC is permitted).

(b) Supply is the delivery of ODS to the ship for use onboard the ship currently in the EU harbour but without servicing executed by the delivering company. In these cases the actual maintenance work is executed by the crew usually while the ship is on the high seas. De facto such situations do not occur for means of transport other than ships. However, in case of ships in almost all cases we deal with "supply" and not with "servicing".

We do not have limit for supply but we would be very interested to understand how Australia and the USA (and possibly other parties) determine the "reasonable servicing requirements" given the multitude of means of transports and refrigeration systems they use. That might help our enforcement as well.

There is another interesting scenario and this is the delivery of ODS to ships where the ODS is eventually not used onboard of the ship that is currently in the port. We observe this quite often, in particular for fishery fleets that a staying on long haul mission on the high seas and where only one supply ship is calling the port. We currently classify this as regular export for refrigeration uses (not even as "ship supply") as this is not for use onboard the ship currently in the EU harbour and thus even farther away from EU consumption.

Do we understand correctly that those parties that limit deliveries to "reasonable servicing requirement" do not permit such movements because it would go beyond the "reasonable servicing requirement" of the ship currently in the port? Or would those actually be considered as export?

4) Movements from third countries to EU means of transport:

On the import side, we would consider it as an import if ODS are delivered to means of transport flagged to an EU Member State or a territory of an EU Member State that is part of the EU (for simplicity we will call those "EU ships/aircraft"). Given that import of HCFC (virgin or not) for refrigeration uses into the EU is prohibited, this means that such supply to EU ships in non-EU harbours would be prohibited as well. If servicing was taking place in a non-EU harbour by a company of the port state, this could only be done with non-virgin HCFC. Of course enforcement of this import restriction entails challenges. Note that such strict restrictions do not exist for products and equipment containing non-virgin halon (to service/supply EU aircraft). The use of halon on non-military ships is generally prohibited aboard EU ships.

## G. Comments submitted by Fiji

At the moment Fiji is including all bulk purchases and service maintenance by our contractors as part of Fiji's consumption as they are within our EEZ and this was also discussed during the SEAP Meeting in Vietnam.

During our HPMP survey it was found that HCFC's used in the shipping sector takes up a large percentage of HCFC consumption approx. 55% and is quite a political matter in our country as well as other Pacific Island countries. The fishing industry is rated as one of the top 4 contributors towards the economic growth for Fiji as well as the Pacific.

Data is also collected via a Declaration Forms which we supply to Customs Officers at the border. So for every vessels that embarks at our ports, they are obliged to declare the quantity of ODS they have on board, if they falsely declare (eg, declare 5 cylinders instead of 10), the cylinders are confiscated upon inspection by the border control officers. They also pay a huge fine to Customs and they can also appeal if they would like to claim their cylinders. For vessels in particular, we have a

separate wholesaler altogether that caters to the needs of both foreign and local vessels that are within Fiji's EEZ. If a vessel is outside Fiji's EEZ asking for ODS, these companies contact us for advice before any transactions is made.

We do not have any records of ODS transactions for Fiji flagged ships in other ports as we were aware that ODS transactions within a country's EEZ is liable for the consumption of that particular country.

So far, as for the imports, it is ok, but we only face issues that as companies that do not apply for import permits and realize that their goods are detained by Customs until they obtain but we are still trying to find out if there can be a way to track down on illegal high seas trading.

#### **H. Comments submitted by Japan**

Japan has been implementing trade regulation under the Foreign Exchange and Foreign Trade Act from the 1990s, in accordance with the Montreal Protocol.

Export is considered to be the time when goods are loaded into vessels or aircraft for transport from Japan to overseas. In case that a person or a firm intends to export supplies for its own use in vessels or aircraft coming and going between Japan and overseas, export approval is not required. Therefore, ODS sales to ships for onboard uses are treated as domestic sales in Japan.

Imports are considered to be the situation where goods arrive from overseas and across the coastline of Japan. Even if supplies are loaded to be used for vessels or aircraft coming and going between Japan and overseas, they are not considered as an import as long as the supplies are not landed in Japan. Even if the supplies are landed in Japan, when it is not intended to be consumed inside Japan for the purpose of transshipment, import approval as specific provision is not required. Accordingly, we do not consider ODS sales to Japanese flagged vessels for onboard uses in the ports of foreign countries as imports and they are not categorized as domestic consumption.

#### **I. Comments submitted by Liberia**

In Liberia, there is no mechanism to differentiate between consumption by ships or land based equipment. Consumption of ODS is largely done in the servicing sector. When reporting, sale to and use by ships of ODS is considered as consumption. Also sale to flagships is not considered export and does not require a permit for servicing on board equipment. Flagships within the Ports of other countries can be considered to be under the control and authority of host Country while there.

We think handling this issue this way is uncomplicated. However we are open to suggestions to improving reporting

#### **J. Comments submitted by Malaysia**

At the moment Malaysia has no restriction on the amount of HCFC import into the country. However there are activities of rebottling of the refrigerants and re export to the neighboring countries. The re exported amount will be declared to the Customs and recorded by the Statistic Department.

As for the onboard servicing of ships regardless of the flags at our ports, the refrigerants used are considered as our consumption because it is done by the local service contractors. We will set a quota system as of 1 January 2013 to meet the freeze target. Therefore if HCFC sold to Malaysian ships was considered as consumption, this would upset the system and will jeopardize our compliance status. Furthermore only licensed importers registered to Ministry of Trade are allowed to import HCFC. In this case ship owners are not considered as importers.

#### **K. Comments submitted by Marshall Islands**

6. The Marshall Islands has similar concerns as those expressed by Australia, Canada, Barbados and the United States in regards to the European Union's proposal on treatment of ODS used to service ships. The Marshall Islands, in the effort to further improve the draft decision, supports the proposed text provided by the IMO Secretariat as stated out in annex 2 of that submission. (The annex 2 text improves the proposed decision as it provides better language).

#### **L. Comments submitted by the Republic of Korea**

In the Republic of Korea, ODS used to all service ship is considered as national consumption not account as export.

#### **M. Comments submitted by Singapore**

In Singapore, the sale of HCFCs to ships flying foreign flag for servicing is considered as local

consumption, and not as an export to the country to which the ship is flagged.

Similarly, HCFCs supplied to Singapore ships berthed at foreign ports should not constitute as an import into Singapore due to the following considerations:

- Firstly, Singapore is obliged to implement the phase-out of HCFCs according to the time-line stipulated by the Montreal Protocol. The implementation of the licensing and quota system to meet our obligations will be affected if the HCFCs sold to Singapore ships at foreign ports is attributed to Singapore's import. This will also lead to potential non-compliance issues as Singapore's baseline for HCFC phase-out did not take into account the HCFCs used on our flag ships.
- Secondly, Singapore ships that purchase HCFCs at foreign ports might not be sailing to Singapore. In this case, no import license will be issued since the HCFCs are not entering into Singapore territory. This is in line with our existing HCFC Licensing Control.

#### **N. Comments submitted by Sri Lanka**

In Sri Lanka there are few Suppliers who supply refrigerants only to ships and large vessels for the purpose of servicing and maintenance of refrigeration systems. They follow the same regulation that is adopted by the NOU for recommending import of ODSs to the country. Sri Lanka is recording the quantity import by them as a domestic consumption. There is no information about purchases by ships since that information are not requested by the NOU to date. However in future this will be implemented if Montreal Protocol give us a guideline

#### **O. Comments submitted by Trinidad and Tobago**

Trinidad and Tobago has a semi-open ship registry in that the ship register is only open to citizens of Trinidad and Tobago, residents or joint venture partnerships (with a citizen or resident). Currently there are approximately 150 vessels registered to the country. The Maritime Services Division is the agency responsible for the monitoring of these flagships, but they do not have any reporting mechanism in place and do not receive or mandate the reporting of ODS consumption to these ships.

The National Ozone Unit, which is the implementing body of the Montreal Protocol, in its annual data reporting to the Ozone and Fund Secretariats accounts for only legal imports as defined by the Montreal Protocol from data acquired through the Customs and Excise Division and the Ministry of Trade and Industry. In addition, the licensing and quota system which monitors ODS imports of refrigerants does not take into consideration sale or use to "flagships".

#### **P. Comments submitted by Tuvalu**

The Maritime and transportation has two passenger ships for domestic and international routes. Tuvalu also has one patrol boat and also fishing boats. These ships and boats contain ODSs systems or equipment. Most of them use R-22 to service the air conditions and freezers. However, one of the passenger ships, MV Nivaga II, uses R-406 which is a component of blend refrigerant and that is why R-142b appears in our reporting data. In previous years, MV Nivaga II, used R-22, then they switched to R-404 and is currently using R-406.

The ODSs used to service ships are normally recorded in an ODS Record Book in which the engineers record any related supply of ODS during the recharging, repair, discharging or the disposal operations. However, both of the ships are on tour to outer islands at the time this summary report is being prepared, and as such access to the record book was not possible. However, additional information would be collected from the engineers on their return. Additionally, the ODSs used to service ships are mainly reported in the Country Programme (CP) Data reports to the Multilateral Fund Secretariat (MFS) and Article 7 data to Ozone Secretariat (OS).

At this time, Tuvalu's ships use mostly R-22 and in minimal amount and also a few amounts of blends

#### **Q. Comments submitted by the United States of America**

Under U.S. domestic regulations implementing the Montreal Protocol and our Clean Air Act provisions (40 C.F.R. 82.3), we use the following regulatory definition:

Export means the transport of virgin or used ODS from inside the United States or its territories to persons outside the United States or its territories, excluding the United States military bases and ships for on-board use.

We do not consider ODS sales to ships for onboard service to constitute an export to the country to which the ship is flagged. Further, our domestic regulations for servicing apply to any servicing that occurs while foreign flagged ships are in a U.S. port or in the U.S. territorial waters.

Our annual reporting of production and consumption is consistent with our domestic practice – a practice that has been in place since we first established our regulatory licensing system in the 1990s.

To us, this practice is consistent with the language of the Montreal Protocol as well as with maritime law. When a ship is in port, it is on the sovereign territory of the port state. The port state can assert extensive authority and control over a foreign flagged vessel in its port, and it would be extremely odd to describe a sale to a ship in our port, that is, in our territory, for onboard use as an “export.”

We do not believe the Law of the Sea Convention provisions are determinative of this issue. While the "high seas" articles of the Law of the Sea Convention have some general applicability (e.g., ships may sail under one flag), the cited rule of the flag state having "exclusive jurisdiction" over its vessels does not apply in territorial waters or in ports. The Montreal Protocol parties have the authority to interpret the Montreal Protocol provisions on exports/imports of ODS in the manner most appropriate to the text and practice of the Protocol.

## **R. Comments submitted by Viet Nam**

Vietnam does not have regulations to control the HCFC use in servicing sector and all HCFC usage for servicing any ships, foreign or national flagged, boarded in Vietnam ports is considered as domestic consumption.

In fact we are not able to control the HCFC used for servicing the Vietnam flagged ships in other countries and this HCFC consumption (if any) should not be counted as Vietnam HCFC consumption.

## Annex II

### **Submission by the International Maritime Organization to the Conference of the Parties to the Vienna Convention at its ninth meeting and the Twenty-Third Meeting of the Parties to the Montreal Protocol: Information on regulation of ozone-depleting substances for international shipping**

20 September 2011

#### **SUMMARY**

This document is submitted to provide information when considering the draft decision on the “Treatment of ozone-depleting substances used to service ships”. It provides information on the regulatory regime for international shipping under the United Nations specialized agency, the International Maritime Organization contained in MARPOL Annex VI which regulates ODS in line with the provisions of the Montreal Protocol. It also proposes a number of amendments to the draft decision, which is set out in annex 2

#### **Background**

1 The advance report of the Open-ended Working Group of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer from the thirty-first meeting held in Montreal on 1–5 August 2011 (UNEP/OzL.Pro.WG.1/31/6), states that the group agreed to establish a contact group, co-chaired by Mr. Cornelius Rhein (European Union) and Ms. Nicol Walker (Jamaica), to discuss preliminary issues linked to the treatment of ozone-depleting substances used in servicing ships, and to establish a procedure for continuing the discussion intersessionally in preparation for the Twenty-Third Meeting of the Parties (paragraph 171).

2 Following the contact group’s deliberations its co-chairs reported that the group had had an initial discussion of the issues in general. There was consensus on the relevance of the matter, and agreement that certain information should be provided by the Ozone Secretariat and interested parties. A number of issues had been raised for further discussion in preparation for future consideration of the draft decision, including standardization of the collection and reporting of information on ozone-depleting substances used on ships; the potential for obtaining data from the International Maritime Organization (IMO) and the World Customs Organization; licensing for the use of ozone-depleting substances on ships; the status of ozone-depleting substances on ships as exports; the link between failure to record ozone-depleting substances used on ships and illegal trade; whether ship-borne ozone-depleting substances counted as stockpiles; and effect of ship-borne ozone-depleting substances on HCFC data discrepancies recorded by providing and receiving parties. The contact group had expressed an intention to continue discussions intersessionally with the aim of revising the draft decision for consideration by the Twenty-Third Meeting of the Parties (paragraph 172).

3 The Working Group agreed to forward the revised draft decision (UNEP/OzL.Pro.WG.1/31/CRP.8), enclosed in its entirety in square brackets as set out in chapter XI of annex I to the advance report, to the Twenty-Third Meeting of the Parties for further consideration (paragraph 173).

## **Regulation of ODS under international shipping legislation - MARPOL Annex VI**

4 This document is submitted to the Twenty-Third Meeting of the Parties to the Montreal Protocol to provide information when considering the draft decision on the “Treatment of ozone-depleting substances used to service ships”. The document provides information on the regulatory regime for international shipping under MARPOL Annex VI (The 1997 Protocol of the International Convention for the Prevention of Pollution from Ships) - Regulations for the prevention of air pollution from ships, a revision of which came into force on 1 July 2010. The definition of ODS and the out phasing dates in MARPOL Annex VI are aligned with the Montreal Protocol.

5 As of 31 August 2011, 65 member States of the International Maritime Organization had contracted to the 1997 Protocol of MARPOL (Annex VI), the combined merchant fleets of those contracting parties constituting approximately 89.82% of the gross tonnage of the world's merchant fleet.

6 Regulation 12 of MARPOL Annex VI contains provisions for the mandatory control and management of ozone depleting substances on ships, where installations, maintenance and record keeping of ODS equipment on board ships are specified. Any deliberate emissions of ODS is prohibited including emissions occurring in the course of maintaining, servicing, repairing or disposing of ODS equipment. Regulation 17 has provisions on port reception facilities for ODS when removed from ships.

7 Each ship shall maintain a list of equipment containing ODS and each ship with rechargeable systems shall maintain an ODS record book. Entries in the record book shall be recorded in terms of mass (kg) of substances on each occasion, such as recharge, repair, discharge and supply. The purpose of ODS data recording is to keep track of the condition and quantities of ODS on board ships, and may be used by the flag State as basis for data collection. ODS data are routinely verified by a surveyor at each periodical survey of ships by the flag State and/or by port State control officers. For more information, please refer to annex 1 where further detailed explanations are given and the full text of MARPOL Annex VI related to ODS is reproduced.

### **Correct purchasing procedures and possible gaps in data collection and reporting**

8 IMO's Marine Environment Protection Committee at its sixtieth session considered document MEPC 60/4/27 (Secretariat) providing information about a possible uncertainty in the shipping industry related to correct procedures when purchasing certain refrigerant gases for shipboard use. This uncertainty could possibly result in problems for ships in need of purchasing such gases in foreign ports, and a potential gap in data collection and reporting of import/export of ozone-depleting substances.

9 The background for the submission was that the IMO Secretariat had been approached by regional and national ozone coordinators in connection with ships purchasing hydrochlorofluorocarbons (HCFCs) for use in their refrigeration systems while calling foreign ports. The information indicated that there might be some confusion existing in the industry on the correct procedures related to purchasing of HCFCs by ships while calling ports of foreign countries. In order to maintain a reliable global inventory of ODS, exports and imports should be reported to avoid gaps in the data collection. It was reported that some European countries had refused to sell HCFCs to a foreign flagged ship unless it could produce a licence to import such substances issued by its flag State. While this procedure does not appear to be specifically required by the terms of the Montreal Protocol, Parties to it are free to mandate additional requirements in pursuit of the goals of the Protocol.

10 MEPC 60 agreed that further information on procedures for purchasing of HCFCs in foreign ports could be useful for maritime Administrations and the shipping industry, and

requested the Secretariat to continue liaising with the Ozone Secretariat on the matter and to keep it updated on relevant developments.

**Draft decision on “Treatment of ozone-depleting substances used to service ships”**

11 The IMO Secretariat understands that the draft decision has been forwarded for further consideration by the Twenty-Third Meeting of the Parties of the Montreal Protocol.

12 To assist in this consideration and to ensure a harmonized approach to address the regulation of ODS on ships engaged in international trade, proposed amendments to the draft decision are provided at Annex 2.

13 In recognition of the common aims of the Montreal Protocol and the ODS regulations in MARPOL Annex VI, the IMO Secretariat is ready to cooperate closely with the Ozone Secretariat and Parties to the Montreal Protocol to ensure correct procedures for purchasing, consumption and treatment of ODS onboard ships engaged in international trade to avoid miscalculation of consumption. The IMO Secretariat offers its cooperation in preparing a study or document that reviews current ozone-depleting-substance data reporting under Article 7 of the Protocol with regard to sales to ships, including ships from other flag States, for onboard servicing and other onboard uses, including on how parties calculate consumption with regard to such sales.

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## ANNEX 1

**Regulation of ODS under international shipping legislation****MARPOL Annex VI**

1 MARPOL Annex VI applies to all ships, while ships of 400 gross tonnage and above have to demonstrate compliance by an International Air Pollution Prevention Certificate issued by the flag Administration.

**Definition of ODS**

2 Regulation 2.16 of MARPOL Annex VI defines an ozone-depleting substance as follows:

*“Ozone depleting substances means controlled substances defined in paragraph (4) of article 1 of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annexes A, B, C or E to the said Protocol in force at the time of application or interpretation of this Annex.*

Ozone depleting substances that may be found on board ship include, but are not limited to:

Halon 1211 Bromochlorodifluoromethane

Halon 1301 Bromotrifluoromethane

Halon 2402 1, 2-Dibromo -1, 1, 2, 2-tetrafluoroethane (also known as Halon 114B2)

CFC-11 Trichlorofluoromethane

CFC-12 Dichlorodifluoromethane

CFC-113 1, 1, 2 – Trichloro – 1, 2, 2 – trifluoroethane

CFC-114 1, 2 – Dichloro –1, 1, 2, 2 – tetrafluoroethane

CFC-115 Chloropentafluoroethane”

3 Regulation 12 of MARPOL Annex VI contains provisions for the mandatory control and management of ozone depleting substances on ships, where installations, maintenance and record keeping of ODS equipment on board ships are specified. Any deliberate emissions of ODS is prohibited including emissions occurring in the course of maintaining, servicing, repairing or disposing of ODS equipment.

4 Each ship shall maintain a list of equipment containing ODS in paragraph 2.1 of the supplement to its International Air Pollution Prevention Certificate, which certifies the compliance of a ship with the requirements of MARPOL Annex VI. The form of paragraph 2.1 of the supplement is as follows:

## 2.1 Ozone-depleting substances (regulation 12)

2.1.1 The following fire-extinguishing systems, other systems and equipment containing ozone-depleting substances, other than hydrochlorofluorocarbons (HCFCs), installed before 19 May 2005 may continue in service:

System or equipment	Location on board	Substance

2.1.2 The following systems containing HCFCs installed before 1 January 2020 may continue in service:

System or equipment	Location on board	Substance

5 Each ship that has rechargeable systems that contain ODS shall maintain an ozone-depleting substances record book. Entries in the record book shall be recorded in terms of mass (kg) of substances on each occasion, such as recharge, repair, discharge and supply of ODS.

### Purpose of ODS data recording

6 Purpose of ODS data recording in the supplement to International Air Pollution Prevention Certificate and in the ozone-depleting substances record book is to keep the condition and quantities of ODS on board ships and may be used by the flag States as basis for data collection.

### Verification of ODS data

7 ODS data recorded in the supplement to International Air Pollution Prevention Certificate and in the ozone-depleting substances record book are verified by a surveyor at each periodical survey of ships and/or by port State control officer when ships call a port of Parties to MARPOL Annex VI. Such verification includes whether the condition of the ODS equipment on board correspond with the particulars of the supplement and the record book, and that records are maintained. In other words, by verifying the ODS data and the condition of the ODS equipment on board, it is confirmed that appropriate maintenance of the ODS equipment has been carried out and deliberate emission of ODS has not taken place.

8 Regulation 12 which regulates ODS is reproduced below.

#### **“Regulation 12** ***Ozone Depleting Substances***

1 This regulation does not apply to permanently sealed equipment where there are no refrigerant charging connections or potentially removable components containing ozone depleting substances.

2 Subject to the provisions of regulation 3.1, any deliberate emissions of ozone depleting substances shall be prohibited. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, except that deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone depleting substance. Emissions arising from

leaks of an ozone depleting substance, whether or not the leaks are deliberate, may be regulated by Parties.

3.1 Installations which contain ozone depleting substances, other than hydro-chlorofluorocarbons, shall be prohibited:

- .1 on ships constructed on or after 19 May 2005; or
- .2 in the case of ships constructed before 19 May 2005, which have a contractual delivery date of the equipment to the ship on or after 19 May 2005 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 19 May 2005.

3.2 Installations which contain hydro-chlorofluorocarbons shall be prohibited:

- .1 on ships constructed on or after 1 January 2020; or
- .2 in the case of ships constructed before 1 January 2020, which have a contractual delivery date of the equipment to the ship on or after 1 January 2020 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 January 2020.

4 The substances referred to in this regulation, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from ships.

5 Each ship subject to regulation 6.1 shall maintain a list of equipment containing ozone depleting substances.<sup>1</sup>

6 Each ship subject to regulation 6.1 which has rechargeable systems that contain ozone depleting substances shall maintain an Ozone Depleting Substances Record Book. This Record Book may form part of an existing log-book or electronic recording system as approved by the Administration.

7 Entries in the Ozone Depleting Substances Record Book shall be recorded in terms of mass (kg) of substance and shall be completed without delay on each occasion, in respect of the following:

- .1 recharge, full or partial, of equipment containing ozone depleting substances;
- .2 repair or maintenance of equipment containing ozone depleting substances;
- .3 discharge of ozone depleting substances to the atmosphere:
  - .3.1 deliberate; and
  - .3.2 non-deliberate;
- .4 discharge of ozone depleting substances to land-based reception facilities; and

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<sup>1</sup> See Appendix I, Supplement to International Air Pollution Prevention Certificate (IAPP Certificate), section 2.1.

.5 supply of ozone depleting substances to the ship.”

9 Regulation 17 which covers port reception facilities is reproduced below.

**“Regulation 17**  
***Reception facilities***

- 1** Each Party undertakes to ensure the provision of facilities adequate to meet the:
  - .1** needs of ships using its repair ports for the reception of ozone-depleting substances and equipment containing such substances when removed from ships;
  - .2** needs of ships using its ports, terminals or repair ports for the reception of exhaust gas cleaning residues from an exhaust gas cleaning system;without causing undue delay to ships, and
  - .3** needs in ship-breaking facilities for the reception of ozone- depleting substances and equipment containing such substances when removed from ships.
- 2** If a particular port or terminal of a Party is – taking into account the guidelines to be developed by the Organization – remotely located from, or lacking in, the industrial infrastructure necessary to manage and process those substances referred to in paragraph 1 of this regulation and therefore cannot accept such substances, then the Party shall inform the Organization of any such port or terminal so that this information may be circulated to all Parties and Member States of the Organization for their information and any appropriate action. Each Party that has provided the Organization with such information shall also notify the Organization of its ports and terminals where reception facilities are available to manage and process such substances.
- 3** Each Party shall notify the Organization for transmission to the Members of the Organization of all cases where the facilities provided under this regulation are unavailable or alleged to be inadequate.”

## ANNEX 2

## UNEP/OzL.Pro.WG.1/31/CRP.8

**Draft decision on treatment of consumption [and reporting under the Montreal Protocol on Substances that Deplete the Ozone Layer on the consumption] of ozone-depleting substances used to service ships engaged in international trade**

IMO comment: The generic term “flag of convenience” should not be used as it is not a term used in IMO instruments. IMO instruments incorporate the term Administration or flag State.

**Submission by Saint Lucia, Belize, Marshall Islands, [Bahamas,] [United States of America,] Trinidad and Tobago, and Saint Vincent and the Grenadines**

*The Meeting of the Parties decides:*

*Taking into account* that Article 4B of the Montreal Protocol on Substances that Deplete the Ozone Layer requires parties to establish and implement systems for licensing imports and exports to phase out the [production and] consumption of Annex A, B, C, and D ozone-depleting substances,

*Taking into account also* that consumption is defined under the Montreal Protocol as production plus imports minus exports,

[Acknowledging that all aspects of environmental protection for ships engaged in international trade are regulated through international treaties adopted and enacted by governments under the specialized agency of the United Nations, the International Maritime Organization, and that the flag State plays a vital role in implementation and enforcement of such international regulations],

[Acknowledging also that under the International Convention for the Prevention of Pollution from Ships (MARPOL) the Administration of a party to MARPOL Annex VI has the authority and responsibility to enforce regulations controlling emissions of ozone depleting substances over vessels flying their flag, including those relating to inspection and certification ],

*Recognizing* that ships use equipment and technologies containing ozone-depleting substances [onboard during operations in national and international waterways],

[Mindful that there might be an uncertainty in the international shipping industry, including in flag State administrations, on the correct procedures related to purchasing of certain gases, which are classified as Ozone Depleting Substances under the Montreal Protocol, by ships while calling ports of foreign countries]

*[Concerned* that [differing party interpretations of the term exports under the Montreal Protocol may result in the miscalculation of consumption or disparities in the reporting of consumption] [there are [reported] cases of ozone-depleting substances supplied to ships while calling foreign ports [with those exports being treated under the data reporting rules of Article 7 of the Montreal Protocol], that may be reported as exports under the regulations of the parties supplying the ozone-depleting substances, but not as consumption by the parties under whose flags the ships sail],

1. To request the Ozone Secretariat in consultation with relevant international organizations, to prepare a [study] [document] that reviews current ozone-depleting-substance data reporting under Article 7 of the Protocol with regard to sales to ships, including ships from other flag States, for onboard servicing and other onboard uses, including on how parties calculate consumption with regard to such sales, [and presents issues relevant to the treatment of the consumption of ozone-depleting substances used to service ships engaged in international trade, for submission to the Open-ended Working Group at its thirty-second meeting to enable the Twenty-Fourth Meeting of the Parties to take a decision on the matter;

2. [To include in the [study] [document] any guidance to parties on ozone-depleting-substance reporting requirements previously provided to the parties regarding sales to ships for onboard uses;]

3. [To request that the [study] [document] be made available to all parties at least six weeks before the thirty-second meeting of the Open-ended Working Group];

3bis Invite the Secretariat of the International Maritime Organization to contribute to the study and to provide [by April 2012] information on the amount of ODS in international shipping and on the regulation of ODS in ships engaged in international trade];

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4. To request parties to provide to the Ozone Secretariat, [by 1 April 2012,] information on [the current system used, if any,)] how to regulate and report on ozone-depleting substances supplied for the purpose of servicing ships, including ships from other flag States, for onboard use, on how they calculate consumption with regard to such ozone-depleting substances, and on any relevant cases in which they have supplied, imported or exported such ozone-depleting substances[;] [.]

5. [To request that, for the purposes of calculating consumption as defined in Article 1 of the Protocol, sales of ozone-depleting substances to a ship calling a party's port for use onboard that ship be considered part of that party's production rather than its export.]

7.

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