SERVICING TAIL FOR HCFCs

WHAT IS IT & WHY DOES IT MATTER?

OZONACTION POLICY BRIEF

Introduction

At the 20th anniversary meeting of the *Montreal Protocol on Substances that Deplete the Ozone Layer* in 2007, agreement was reached in Decision XIX/6[1] to adjust the Montreal Protocol's hydrochlorofluorocarbons (HCFC) phase-out schedule and accelerate the phase-out of production and consumption of these chemicals, based on the procedure in paragraph 9 Article 2 of the Montreal Protocol, and on the basis of assessments made consistent with Article 6 of the Protocol, Although having considerably lower ozone depletion potentials (ODP) than CFCs, many HCFCs have high global warming potentials, of up to 2000 times that of carbon dioxide.

This adjustment resulted in an earlier phase-out date for the production and consumption of HCFCs in developed (non-Article 5) countries by 1 January 2020, and for Article 5 countries by 1 January 2030. Some developed countries achieved total phase-out[2] comfortably in advance of their schedule, and the phase-out for developing (Article 5) countries is progressing very well with all countries expected to comply with the 35 % reduction in production and consumption by 2020 leading to a total phase-out of HCFCs by 1 January 2030.

The Montreal Protocol also provided for the use of a limited amount of HCFCs, if required, after the date for total phase out of HCFCs—this is frequently referred to as the 'servicing tail'. This is available for both non-Article 5 and Article 5 countries and is due for review at the Meeting of the Parties in 2025 (see below). This concept of a servicing tail, while allowed under the Montreal Protocol might not always be consistent with the phase-out targets specified under the HCFC Phase out Management Plan (HPMP) funding agreements agreed by Article 5 countries with the Executive Committee when receiving funds for HCFC phase out, where countries are obliged to meet these targets as specified in the agreement. Details and explanations are provided below.


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What is the 'servicing tail' and when does it apply?

Although the words '*servicing tail*' do not appear in Decision XIX/6 nor in the Protocol text, this terminology is commonly used to describe the ten-year period following the total phase-out of HCFCs within which Parties may continue to produce and consume HCFCs at a designated level for the servicing of existing refrigeration and air-conditioning (RAC) equipment, and other specified applications[3]. See Montreal Protocol Decision XXX/2 for more details.

The control measures provide all Parties with the possibility to continue consumption and production of HCFCs if required after the total phase-out dates specified in the Montreal Protocol, with specified time periods and levels (see table at right).

Type of Party	Article 5 countries	Non-Article 5 countries
Date of total HCFC phase-out	2030	2020
Period when limited amounts of HCFCs may be used for servicing ('servicing tail')	2030-2040	2020-2030
Size of servicing tail	2.5% of HCFC baseline (annual average)*	0.5% of HCFC baseline (maximum per year)

** To be reviewed in 2025*

Why is the servicing tail relevant now?

The date for the total phase-out of HCFCs in for Article 5 countries by 1 January 2030 is fast approaching. Some countries which are currently implementing their HPMPs may have agreed to phase-out dates earlier than provided under the Montreal Protocol, therefore their deadline can be just around the corner. For a majority of Article 5 countries, it is important that this issue is well understood to avoid unforeseen compliance challenges in the future. This understanding becomes more important as countries decide on their likely requirements and plans regarding the servicing of remaining HCFC-based equipment after 2030 when drafting Stages II and III of their HPMPs for consideration of the Executive Committee. The time to understand and plan for the 'servicing tail' issue is now!

What has changed since 2007 - is it still only for RAC servicing?

This 'servicing tail' allowance was originally limited only to the servicing of existing RAC equipment that will still be in use in the ten years between 2030-2040. Decision XIX/6 also included (in paragraph 13) a review in 2015 of the need for the 0.5 % for servicing for non-Article 5 countries and in 2025 for the need for the annual average of 2.5 % for servicing provided for Article 5 countries. For developed countries this review was initiated in 2015; which resulted in the Adjustment to the Protocol in 2018 by Decision XXX/2[4]. This Adjustment, which applies to both developed and developing countries, added a number of sectors to which this allowance could apply, namely:

- The servicing of fire suppression and fire protection equipment existing on 1 January 2020
- Solvent applications in rocket engine manufacturing
- Topical medical aerosol applications for the specialised treatment of burns

Can HCFCs for the 10 years be stockpiled?

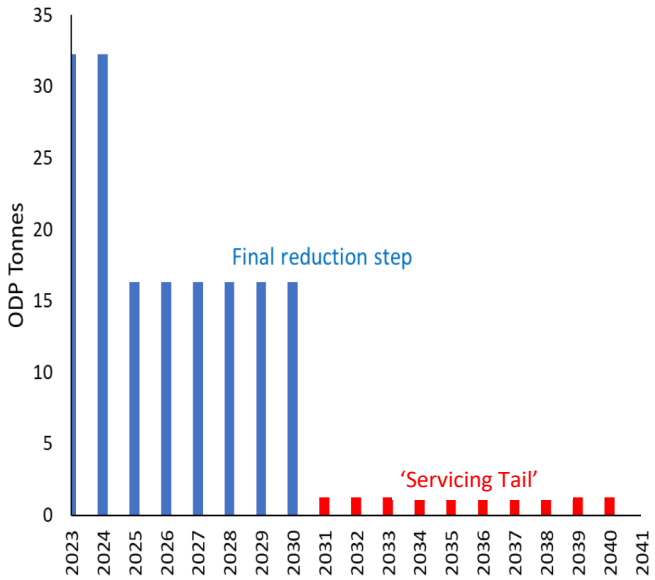

Figure 1- Hypothetical Scenario: Annual Average

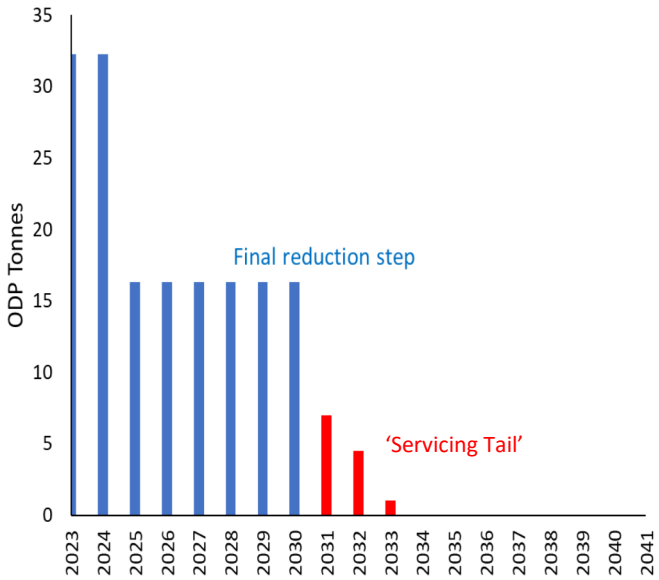

Figure 2 - Hypothetical Scenario: Front loading

The adjusted text of the Montreal Protocol[5] allows non-Article 5 countries to produce/consume up to 0.5 % of HCFC baseline for servicing in the period 2020–2030. In the case of Article 5 countries, the language is slightly different: it allows for an ***annual*** average of 2.5 % of HCFC baseline during the period 2030–2040. This means that based on the language of the Protocol, the consumption level permitted for servicing may be up to 25 % of the baseline averaged over 10 years.

The figures above illustrate this: Figure 1 shows the 'servicing tail' with an annual average production/consumption of 2.5 % of baseline per year over the 10-year period. Figure 2 shows how, in principle, a country may stockpile or 'frontload' the consumption in the first few years, if required. While this is theoretically possible according to the Protocol, for most Article 5 countries that have funded HPMPs, **the conditions of the funding agreement with the Executive Committee need to firstly be considered**. See '*Montreal Protocol Servicing Tail vs. Executive Committee Funding Agreements*' section below.

As a consequence of the provision that allows for the consumption of HCFCs on an annual average of 2.5 % over a 10-year period, the compliance of an Article 5 country to this condition for the service tail will be determined only after 2040, where by that time, the average consumption level from 2030-2040 could be calculated.

However, the servicing tail provided by the Montreal Protocol would not apply where specific annual consumption figures are specified in the HPMP funding agreement (see below), and agreed by Article 5 countries during their HPMP approval.

How is the size of the servicing tail calculated?

The size of the 'servicing tail' for Article 5 countries is calculated at an annual average of 2.5 % per year of the **HCFC Baseline**. It is important to note that it is *not* 2.5 % of the **Starting Point for Aggregate Reductions** (i.e. the agreed consumption level on which the HPMP agreement is based). For most countries this distinction is not of much relevance, but it will be especially significant for countries that have agreed to an accelerated phase-out under the Montreal Protocol (i.e. earlier than 2030), and for those countries whose starting point was defined as a different figure from the HCFC consumption baseline.[6]

Montreal Protocol Servicing Tail vs. Executive Committee Funding Agreements

It is very important to make the distinction between the requirements of the levels of HCFC phase-out according to the Montreal Protocol commitments and the requirements of the specific funding agreement between the country and the Executive Committee for the HPMP. There are three significant differences which need to be considered:

"Countries need to follow the lower consumption levels of the funding agreement"

1. If the maximum allowable level of consumption/production (baseline and reduction steps) are lower in the HPMP funding agreement than those in the Montreal Protocol phase-out schedules, Article 5 countries need to follow the lower levels of consumption stipulated in the funding agreement as a priority so as not to contravene the agreement and be assessed with a financial penalty.

2. Any accelerated HCFC phase-out agreement signed by the countries with the Executive Committee which specifies, *by choice,* the date (year) for which HCFC consumption should be reported as zero before or up to 2030 does not allow those countries to enjoy the 'servicing tail' as defined under the Montreal Protocol (2030-2040).

3. The HPMP funding agreement may specify an **annual maximum** for consumption after phase-out and *not* an **annual average** over 10 years for the 'servicing tail' as is stipulated in the Montreal Protocol. The servicing tail provided by the Montreal Protocol would therefore not apply where such annual consumption figures are specified in the agreement. The HPMP funding agreements, to date, do not allow front-loading or stockpiling in any particular year, only a maximum of approximately 2.5 % for each year (see figures 1 and 2). If annual consumption under the agreement is exceeded, a country may have to return funding as part of a penalty clause under that agreement.

Is the servicing tail an exemption? Will it be reported as 'consumption'?

The Montreal Protocol specifies, *inter alia*, that "each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing 1 January 2030, and in each twelve-month period thereafter, its calculated level of consumption and production of the controlled substances in Group I of Annex C does not exceed zero". This means that the total phase-out of HCFCs in Article 5 countries is expected to be achieved in 2030, with a provision for consumption/production for servicing (and other specified uses). It is not automatically assumed all countries will require this consumption and; the adjusted Protocol text states that: "*each such Party **may** exceed that [zero] limit on consumption…*", that is, the total phase-out date is 2030, but if required a country can take advantage of the 'servicing tail' after this date.

So, while it is not anticipated that all countries will require consumption/production for servicing, those that do will not need to specifically request this consumption allowance in advance from the Meetings of the Parties. The Montreal Protocol has developed and used various exemption mechanisms in the past. Some are authorised for specific named Parties and quantities (e.g. essential and critical uses), while others are global exemptions for defined categories of uses or applications (e.g. laboratory and analytical uses and feedstock)[7]. The servicing tail is an 'exemption' unlike any other that can be taken advantage of if needed, within the predetermined limits, without the requirement of a specific request and authorisation. It is expected that Parties would take the necessary precautions to ensure that such consumption after 2030 falls within the conditions of the specific applications allowed under the Montreal Protocol.

"Any country taking advantage of the servicing allowance in 2030-2040 will not record zero consumption"

HCFC consumption and production for servicing (and other specified uses) reported under Article 7 during the 2030-2040 period will be recorded by the Ozone Secretariat as "Consumption" or "Production" so any country taking advantage of this allowance will **not** be recorded as having zero HCFC consumption/production. This will not however put a Party in non-compliance, if this consumption is within the allowed level.

What if an early phase-out was negotiated?

If a country agreed to an accelerated phase-out schedule with the Executive Committee followed by a small allowance for consumption in its HPMP, this small allowance does not constitute the servicing tail as defined under the Montreal Protocol[4] but rather an agreed amount of consumption within the defined period as specified in the Agreement with the Executive Committee. In most cases, these countries have agreed as a condition of the funding provided not to avail themselves of the servicing tail provided by the Montreal Protocol from 2030-2040.

Preparing for HPMP Stage II and III

The issue of the 'servicing tail' for HCFC consumption and production will be of great significance to countries that are currently preparing or will shortly be preparing their HPMP Stage II or III which will specify a total HCFC phase-out target. For those countries that had opted for an earlier phase-out, the funding agreement will specify the details of the alternative approach of a small allowance for consumption (typically at about 2.5 % of baseline) which would become effective after the early phase-out date, typically before 2030.

It is very important when preparing Stage II of the HPMP's especially for LVC countries to consider that consumption and production for servicing is planned for, principally for the servicing of those remaining refrigeration and air-conditioning equipment, but also - if needed - for the allowed sectors in Decision XXX/2: In some cases it might be prudent to carefully consider whether the next stages of the HPMP should be developed only for the period that would allow countries to plan for their servicing requirements before 2030. It is important to remember that the objective of the Montreal Protocol is to ensure a sustained phase out of ODS, therefore all efforts should be made to meet this objective.

To avoid any unforeseen challenges in the future, it is crucial that countries have a good understanding of their likely requirements and plans regarding the 'servicing tail' when preparing for and drafting their HPMP stages Stages II and III. There will be an opportunity, as specified in the Protocol text for Parties to review, in 2025, the need for a percentage for servicing for developing countries. Countries may wish to consider the following:

Quick Checklist for Servicing Tail

- ✔ Examine the difference between your country's national consumption (and production) baselines and the starting point for aggregate reductions (from the HPMP funding agreement)
- ✔ Compare the HCFC phase-out schedules for your country with the reduction steps specified in the existing/previous HPMP funding agreement.
- ✔ Carry out a study/research which sectors in your country may require HCFC consumption in the future for servicing (and for other specified uses) after the total HCFC phase-out
- ✔ Carry out a national study and forecast any potential HCFC consumption requirements from 2030-2040
- ✔ In preparing/drafting the HPMP Stage II or III:
  - Determine if your country needs HCFCs for servicing (and other specified uses) after 2030
  - Specify in which year the small allowance for consumption (equivalent to a servicing tail) will begin
  - Ensure that the funding agreement stipulates that consumption is maintained until a specified year
  - In the HPMP Stage II or III, confirm both the text and Annex 2A of the funding agreement are clear and consistent
  - Ensure that the level of the small allowance for consumption in the funding agreement is in line with (and does not exceed) the HCFC phase-out schedule; this quantity should be specified for every year in the agreement

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References

1. The adjustment was carried out through Decision XIX/6 at the Nineteenth Meeting of the Parties to the Montreal Protocol, in Montreal in 2007.
2. The terminology 'total phase-out' is used in this policy brief to indicate the completion of the HCFC phase-out, not including any exemption for servicing
3. See page 2 "What has changed since 2007 - is it only for RAC servicing?"
4. Decision XXX/2: Adjustments to the Montreal Protocol, adopted at the Thirtieth Meeting of the Parties, 2018
5. Article 5, para. 8 ter (e)(i) states: "Each such party may exceed that limit on consumption in any such twelve-month period so long as the sum of its calculated levels of consumption over the ten-year period from 1 January 2030 to 1 January 2040, divided by ten, does not exceed two point five per cent of the average of its calculated levels of consumption in 2009 and 2010, and provided that such consumption shall be restricted to:……."
6. HPMP agreements provide for sustained targets in consumption beyond a specified year; these sustained targets are not eligible for funding. In the case of a total phase-out, the target consumption would be zero. Funding levels in the funding agreements are determined based on ExCom Decision 74/50 and no more funding can be requested beyond this level.
7. *Laboratory and analytical, feedstock and process agent uses* - Parties report production and consumption for these uses to the Ozone Secretariat but Parties do not apply for authorisation. The amounts reported for feedstock and process agents are not reflected as consumption and production.
Essential use and critical use exemptions - Parties have to be authorised to have these exemptions, and these exemptions as well as Laboratory and analytical uses *are* reflected as production and consumption.

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