



Ozone Layer Depletion - Regulatory Programs

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HCFC Phaseout Schedule

All developed (i.e., non-Article 5) countries that are Parties to the Montreal Protocol are subject to caps on their consumption and production of [hydrochlorofluorocarbons](#) (HCFCs).

Consumption is calculated by the following formula: consumption = production plus imports minus exports. The cap is set at 2.8% of that country's 1989 [chlorofluorocarbon](#) consumption + 100% of that country's 1989 HCFC consumption. The cap on production is set at the average of a) 1989 HCFC production + 2.8% of 1989 CFC production and b) 1989 HCFC consumption + 2.8% of 1989 CFC consumption. (Quantities of chemicals measured under the cap are [ODP](#)-weighted, which means that each chemical's relative contribution to ozone depletion is taken into account.)

Under the Montreal Protocol, the U.S. and other developed nations are obligated to achieve a certain percentage of progress towards the total phaseout of HCFCs, by certain dates. These nations use the cap as a baseline to measure their progress towards achieving these percentage goals.

The following table shows the U.S. schedule for phasing out its use of HCFCs in accordance with the terms of the Protocol. The Agency intends to meet the limits set under the Protocol by accelerating the phaseout of HCFC-141b, HCFC-142b, and HCFC-22. These are the most damaging of the HCFCs. By eliminating these chemicals by the specified dates, the Agency believes that it will meet the requirements set by the Parties to the Protocol. The Agency is also committed to the phaseout of all HCFCs. The third and fourth columns of the table show how the U.S. will meet the international obligations described in the first two columns. The HCFCs to be phased out according to the schedule in the table below include HCFC-22, HCFC-123, HCFC-124, HCFC-133a, HCFC-141b, HCFC-142b, HCFC-225ca and HCFC-225cb.

Comparison of the Montreal Protocol and United States Phaseout Schedules

Montreal Protocol		United States	
Year to be Implemented	% Reduction in Consumption and Production, Using the Cap as a Baseline	Year to be Implemented	Implementation of HCFC Phaseout through Clean Air Act Regulations
2004	35.0%	2003	No production and no importing of HCFC-141b
2010 ¹	75.0%	2010	No production and no importing of HCFC-142b and HCFC-22, except for use in equipment manufactured before 1/1/2010 (so no production or importing for NEW equipment that uses these refrigerants)
2015 ²	90.0%	2015	No production and no importing of any HCFCs, except for use as refrigerants in equipment

			manufactured before 1/1/2020
			Share
2020	99.5% ³	2020	No production and no importing of HCFC-142b and HCFC-22
2030	100.0%	2030	No production and no importing of any HCFCs

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¹ Adjustments to the HCFC phaseout schedule were agreed to at the 19th Meeting of the Parties to the Montreal Protocol, September 2007. More details about the September 2007 adjustments to the Montreal Protocol are [available here \(PDF\)](#) (4 pp, 38K, [About PDF](#)).

² The Parties agreed to address the possibilities or need for essential use exemptions, no later than 2015.

³ The Parties agreed to review in 2015 the need for the 0.5 per cent production or import for servicing during the period 2020-2030.

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Last updated on Friday, August 28th, 2009.
<http://www.epa.gov/ozone/title6/phaseout/hcfc.html>
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