Below is the new phase-out schedule of HCFCs in the Philippines:

Base Level	Average importation from 2009-2010
1 January 2013	Freeze of base level
1 January 2015	10% reduction in HCFC importation
1 January 2020	35% reduction in HCFC importation
1 January 2025	67.5% reduction in HCFC importation
1 January 2030	97.5% reduction in HCFC importation
1 January 2030 to 31 December 2039	Annual average of 2.5%of HCFC base level allowed for servicing
1 January 2040	HCFCs no longer allowed to be imported

The Philippines, with assistance from the Multilateral Fund and the Implementing Agencies, has drafted a HCFC Phaseout Management Plan (HPMP) that will spell out the overarching strategy to phase out HCFC usage through the implementation of non-investment and investment projects. Among the sectors that will phase out HCFC consumption are the following: foam manufacturing, domestic airconditioning, commercial and industrial refrigeration and airconditioning, fire extinguishing, and servicing. In 2010 the "HCFC-141b Phaseout in the Foam Sector Project" was approved by the MLF. The project is currently implemented by the United Nations Industrial Development Organization (UNIDO) and the DENR. Phase out projects for the other sectors will be submitted to the MLF for consideration and approval of funding support.

Alternatives: What are the Options?

- Foam blowing: Hydrocarbons (HCs) such as pentane, Water-blown technology, Supercritical Carbon dioxide (CO_2), Hydrofluorocarbons (HFCs);
- Cooling Agent for domestic airconditioning, and commercial refrigeration/airconditioning: HFCs and HFC blends, natural refrigerants such as HCs, ammonia and CO_2;
- Fire Extinguisher: Dry Chemical, AFFF, CO_2, HFCs, Water (depending on application);
- Solvents: Methylene chloride, Trichloroethylene, Aqueous cleaning fluids, HFCs.
- Ensure that hydrocarbon refrigerants are only used in equipment manufactured and certified for hydrocarbon use.

Useful websites: http://www.unep.org/dtie/
http://www.epa.gov/ozone/snap/

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Website: http://emb.gov.ph/philozone/philozone.htm

What we SHOULD KNOW about HCFCs

(such as HCFC-22, HCFC-141b, HCFC-123 and HCFC Blends)

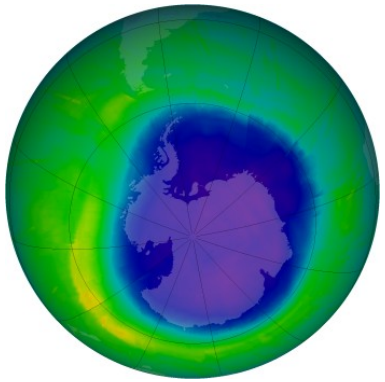
What are hydrochlorofluorocarbons or HCFCs?

HCFCs are a group of ozone-depleting substances (ODS) controlled under the Montreal Protocol on Substances that Deplete the Ozone Layer. HCFCs were found to have a negative effect on the earth's stratospheric ozone layer which protects humans, animals and plants against the harmful ultraviolet-B (UV-B) rays of the sun.

How do HCFCs harm the ozone layer?

The ozone layer is a thin, fragile shield that envelops the earth and acts like an umbrella that protects us from the sun's harmful ultraviolet-B radiation (UV-B). It is made up of ozone (O_3) molecules and located in the upper atmosphere, 20 to 40 kilometers above the earth's surface.

Ozone-depleting substances (ODS) like HCFCs destroy ozone molecules in the stratosphere, which causes ozone depletion – the thinning of the ozone layer. Because of this, more UV-B penetrates the earth putting all life forms at risk.



What are the types of HCFCs, and where are they used?

There are several HCFCs that are commonly used in the Philippines. Each type of HCFC has a different ozone-depleting potential (ODP), or ability to destroy ozone molecules in the stratosphere. For reference purposes, chlorofluorocarbon 11 (CFC 11), a major ODS, has an ODP of 1.00.

Chemical Name	ODP	Use
HCFC 22	0.055	Cooling agent in domestic, commercial, and transport refrigerators
HCFC 141b	0.11	Foam-blowing agent and cleaning agent/solvent
HCFC 123	0.02	Fire extinguishing agent and cooling agent in commercial refrigeration and air-conditioning
HCFC blends	0.025-0.033	Cleaning agent/solvent

What is the Philippine Government doing in response to this issue?

The Philippines is one of the 196 countries that ratified the Montreal Protocol on Substances that Deplete the Ozone Layer. The Montreal Protocol is an agreement where its member countries agreed to gradually reduce and eventually eliminate their production and consumption of ODS following an agreed schedule. The Philippine Ozone Desk (POD) of the Department of Environment and Natural Resources – Environmental Management Bureau (DENR-EMB) is tasked to ensure that the Philippines complies with its commitments to the Montreal Protocol.

Each country that ratified the Montreal Protocol committed to gradually reduce and eventually eliminate its CONSUMPTION of ODS, including HCFCs. The Montreal Protocol defines CONSUMPTION as:

CONSUMPTION = PRODUCTION + IMPORT – EXPORT

Since the Philippines is neither a producer nor an exporter of HCFCs, its consumption of HCFCs is equal to its HCFCs importation.

During the 19th Meeting of the Parties in 2007 in Montreal, Canada, Parties to the Montreal Protocol agreed to adjust the HCFC phase-out schedules for both developed and developing countries.