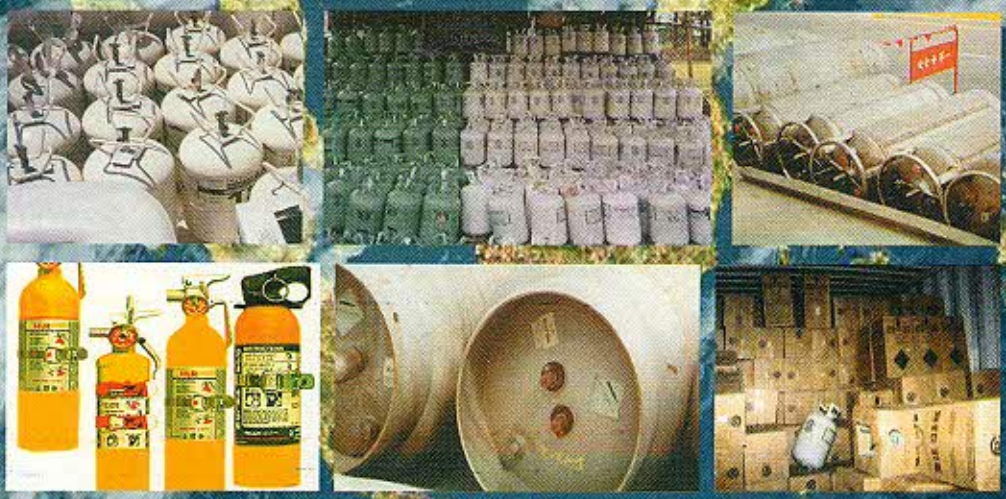
# Revised Chemical Control Order for Ozone Depleting Substances

## (DENR Administrative Order No.2004-08)



Department of Environment and Natural Resources
Environmental Management Bureau

# Revised Chemical Control Order for Ozone Depleting Substances

## (DENR Administrative Order No. 2004-08)

Department of Environment and Natural Resources
Environmental Management Bureau
DENR Compound Visayas Avenue, Quezon City
Philippines

## I. Background/Rationale

**Ozone Layer** is considered as nature's umbrella. It is a thin, fragile shield that efficiently and effectively filters all harmful ultraviolet radiation. It protects the earth and the entire ecosystem from the damaging rays of the sun. The creation and destruction of ozone molecules that compose the ozone layer is a natural phenomenon in the atmosphere. But because of certain man-made chemicals that were released in the atmosphere the balance of creation and destruction was altered. These chemicals are called **Ozone Depleting Substances** or **ODS**. ODSs are compounds with halogen elements like Chlorine and Bromine. These are substances that when released in the atmosphere, have the capability to destroy ozone molecules and eventually deplete the Ozone Layer.

## II. The Montreal Protocol on Substances that Deplete the Ozone Layer

The alarming rate of ozone layer depletion has led developed and developing countries to draw up an agreement known as the **Montreal Protocol on Substances that Deplete the Ozone Layer.** The Montreal Protocol is an international environmental agreement that binds, to date, 186 countries worldwide, to reduce and eventually phase out the production and consumption of ozone depleting substances. The Protocol contained a list of controlled ODSs. It is a dynamic document with adjustments and amendments. **Adjustments** are changes to the Protocol with regard to the phase-out timetable for existing controlled substances. These are automatically binding for all countries, which have ratified the Protocol or the relevant amendment. **Amendments** are significant changes to the Protocol such as adding new substances to the list of controlled substances, or new obligations. Parties are not bound to these changes unless the country ratifies the amendment. In the history of the Protocol, four amendments and five adjustments have been agreed upon to ensure that it reflects improved scientific and technical understanding. These amendments and adjustments are the following:

- 1990 London Amendment and Adjustment
- 1992 Copenhagen Amendment and Adjustment
- 1995 Vienna Adjustment
- 1997 Montreal Amendment and Adjustment
- 1999 Beijing Amendment and Adjustment

## III. The National Response to Ozone Layer Depletion

On September 14, 1988 the Philippines became a signatory to the Montreal Protocol on Substances that Deplete the Ozone Layer. This was ratified by the

Philippine Senate on March 21, 1991. The Philippine Senate has ratified three amendments and is reviewing the Montreal and Beijing Amendment for ratification.

Republic Act 6969- Chemical Control Order for Ozone Depleting Substances

The passage of Republic Act 6969, also known as the Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990, included the Chemical Control Order or CCO. The CCO, revised and amended in 2004, incorporated provisions of the National CFC Phase-out Plan. The CCO covers the ban; limit; and/or regulate the use, manufacture, import, export, transport, processing, storage, possession, and sale of ozone depleting substances that include CFCs.

Updated Philippine Country Program for Ozone Layer Protection

Since the implementation of the first Philippine Country Program on the Phaseout of Ozone Depleting Substances in 1993, 34 investment projects have phased out approximately 1,300 MT ODS in 46 major industries in 1998. Phase-out programs included information and education campaigns that reached the general public through schools, regional fora and the media. The country program was updated in 1999. The "Updated Philippine Country Program for Ozone Layer Protection" represents a more positive and proactive approach to the phaseout of ODS. It specified the schedules and laid out plans, programs, and activities expected to facilitate an orderly and sustainable phaseout of ODS in the country.

## IV. ODS Phase-Out Schedule

**Table 1**

| NAME OF ODS | BASE LEVEL | 1999 | 2002 | 2003 | 2005 | 2007 | 2010 | 2015 | 2016 | 2040 |
|---|---|---|---|---|---|---|---|---|---|---|
| CFC (Annex A) | 1995-1997 | freeze | | | 50% | 85% | 100% | | | |
| CFC (Annex B) | 1998-2000 | | | 20% | | 85% | 100% | | | |
| Halons (Annex A Group II) | 1995-1997 | | freeze | | | | 100% | | | |
| Methyl Bromide (non-QPS only) Annex E | 1995-1998 | | freeze | | 20% | | | 100% | | |
| Methyl Chloroform (1,1,1, TCA) Annex B Group II | 1998-2000 | | | | 30% | | | | | |
| Carbon Tetrachloride (CTC) Annex B Group II | 1998-2000 | | | | 85% | | | 100% | | |
| HCFCs (Annex C Group I) | 2015 | | | | | | | | freeze | 100% |

**Table 2. Import Quota Allocation**

| Name of Company | Projected Quota | | | | | | |
|---|---|---|---|---|---|---|---|
| CFC 11 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Abomar Corporation | 37.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delsa Chemicals & Multi-Products Inc. | 56.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Manhattan/Noah/Noxell/ Westchem Corp. | 127.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Mark Davies/Genetron Refrigeration Industries | 51.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Thermo Engineering Supply Corporation | 98.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wise & Company, Inc. | 24.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sub-Total | 395 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| CFC 12 | | | | | | | |
| Abomar Corporation | 198.2 | 181.7 | 173.4 | 79.6 | 70.3 | 52.7 | 0.0 |
| Delsa Chemicals & Multi-Products Inc. | 126.0 | 115.5 | 110.3 | 50.6 | 44.7 | 33.5 | 0.0 |
| Manhattan/Noah/Noxell/ Westchem Corp. | 10.2 | 192.6 | 183.9 | 84.4 | 74.5 | 55.9 | 0.0 |
| Mark Davies/Genetron Refrigeration Industries | 263.7 | 241.7 | 230.7 | 105.9 | 93.5 | 70.1 | 0.0 |
| Thermo Engineering Supply Corporation | 258.2 | 236.7 | 225.9 | 103.7 | 91.6 | 68.7 | 0.0 |
| Wise & Company, Inc. | 71.7 | 65.8 | 62.8 | 28.8 | 25.4 | 19.1 | 0.0 |
| Sub-Total | 1127.9 | 1034.0 | 987.0 | 453.0 | 400.0 | 300.0 | 0.0 |
| | | | | | | | |
| Grand Total Quota Allocated | 1522.9 | 1034.0 | 987.0 | 453.0 | 400.0 | 300.0 | 0.0 |
| Unallocated Quota | 287.1 | 475.0 | 373.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| NCPP Commitment | 1810.0 | 1509.0 | 1360.0 | 453.0 | 400.0 | 300.0 | 0.0 |
| Montreal Protocol Schedule | | 1509.0 | | 453.0 | | | 0.0 |

Note: Unallocated quota = NCPP Commitment – Grand Total Quota Allocated

There are six registered importers for CFCs namely: Abomar Corporation, Delsa Chemicals and Multi-Products, Inc., Manhattan/Noah/Noxel Westchem Corp., Mark Davies/Genetron Refrigeration Industries, Thermo Engineering Supply Corporation, and Wise and Company, Inc. The import quota allocation for these importers decreases every year until the eventual phaseout of CFC importation in 2010.

## V. The Revised CCO

DENR Administrative Order Number 2004-08, also known as the "Revised Chemical Control Order for Ozone Depleting Substances," was signed by the Secretary last April 13, 2004 and was published in two major newspapers of general circulation last April 16, 2004. The amended CCO provides stricter policies on importation, distribution, processing, sales and consumption of Ozone Depleting Substances or ODS.

ODSs covered under the Revised CCO include **Chlorofluorocarbons** or **CFCs** and the transitional substance **Hydrochlorofluorocarbons** or **HCFCs**; used as cooling agent of refrigerators and air-conditioners, propellant for aerosols and metered-dose inhalers, blowing agent for foams and mattresses; **Halons** used in fire extinguishers; and **Carbon Tetrachloride** and **Methyl Chloroform** used as cleaning agent.

## VI. Implications of the Revised CCO

The revised CCO will have implications on the different sectors that use ODSs particularly those that use CFCs, among others:

**Importers** – Importer of ODS must register with the Environmental Management Bureau (EMB). They have to secure the Pre-Shipment Importation Clearance (PSIC) prior to the entry of ODS shipment within the Philippine territory. Importers must follow the quota allocation and conform with the **one-shipment, one clearance policy.** Distribution of these substances shall be limited to registered dealers, retailers, and re-sellers by the EMB. They should also be committed to participate in the reclamation scheme for ODS. CFC importation is no longer allowed by 2010.

**Dealers, Retailers, and Re-sellers** – Only the dealers, retailers, and re-sellers registered with the EMB and accredited by DTI are allowed to purchase, re-sell, distribute, and utilize allowable uses of ODS. Dealers and retailers should also adhere to the Code of Practice for Refrigeration and Air-Conditioning (RAC) and Mobile Air-Conditioning (MAC) for issuance and renewal of registration. They should also keep a record of their ODS sales for reference during inspection. Retailing/distribution of ODS is allowed only to service shops/providers accredited by DTI and certified by TESDA on technical and skill competencies. Sale and use of small disposable containers (less than 1 kg) with CFCs is not permitted.

**Manufacturing Sector** - Foam, Refrigeration, Air-conditioning, and Tear Gas Manufacturers are no longer allowed to use CFCs in the manufacturing of their products.

**Servicing Sector** – RAC and MAC service shops should have TESDA-certified technicians and accreditation from DTI and should adhere to the Code of Practice for RAC and MAC. Without TESDA-certified technicians, service shops will not be accredited by the DTI. Technicians must undergo proper training and service shops should have the proper equipment to better handle ODS. Likewise, service shops with no accreditation from DTI will not be allowed to purchase CFCs.

Certain practices of service providers such as installation of CFC-using systems, flushing using ODS, and venting or intentional releases of ODS is no longer allowed.

**Vehicle Owners** – Back conversion or charging with CFC a system that is non-CFC is strictly prohibited. Hence, owners of air-conditioned vehicles should ensure that their vehicles (manufactured in 1999 onwards) are charged with CFC alternative like R-134a.

**Building Owners** – R-11 importation will be banned by January 2005. Thus, buildings with chillers and centralized aircons that use R-11 should choose from the following recommendations:

- Replacement of existing system
- Retrofitting
- Use of drop-ins (substitute refrigerant)
- Stockpiling of R-11 to assure the functioning of their chillers

The general public is encouraged to buy products that are CFC-free or ozone-friendly and to patronize service shops that are DTI-accredited and with TESDA-certified technicians.

**DENR ADMINISTRATIVE ORDER**
**NO. 2004-08**

**Subject: REVISED CHEMICAL CONTROL ORDER FOR OZONE DEPLETING SUBSTANCES (ODS)**

Pursuant to the provisions of *Executive Order No. 192,* Series of 1987, Republic Act No. 6969 (Toxic Substances and Hazardous and Nucleal Wastes Control Act of 1990), Section 30 of Republic Act No. 8749 (The Philippine Clean Air Act of 1999) and *Resolution No. 25 dated 10 March 1993* of the Senate of the Republic of the Philippines ratifying the *Montreal Protocol on Substances that Deplete the Ozone Layer* and Resolution No. 86 dated March 19, 2001 of the Senate of the Republic of the Philippines ratifying the Copenhagen Amendments, and to strengthen the legal infrastructure to support the implementation of the Philippine National CFC Phase-out, the Department hereby revises DAO 2000-18 and DAO 2002-22 and promulgates the revised Chemical Control Order for Ozone Depleting Substances (ODS), hereinafter referred to as CCO for ODS:

**Section 1. DECLARATION OF POLICY**

It is the policy of the State to regulate, control, restrict or prohibit the import, export, use, manufacture, distribution, processing, storage, possession and sale of Ozone-Depleting Substances to abate or minimize their risks and hazards to the stratospheric ozone, public health, and the environment.

**Section 2. COVERAGE**

This CCO applies to the importation, exportation, use, manufacture, distribution, processing, storage, possession and sale of chemical substances under Annex A, Group I & II, and Annex B, Group I, II & III and Annex C, Group I & II of the Montreal Protocol, as amended, listed in ANNEX II. Annex E substance (Methyl Bromide), being a pesticide, is covered by Section 9 of Presidential Decree 1144 and Sections 1 and 2 of Article III of the Fertilizer and Pesticide Authority (FPA) Rules and Regulations No. 1, Series of 1977.

Regardless of source, these substances can be in forms defined under Article i, paragraph 4 of the Montreal Protocol as clarified under Decision 1/12A of the First Meeting of the Parties and Decision II/4 of the Second Meeting of the Parties, herein enclosed as Annex I.

In general, these substances can be existing alone or in mixtures, can be contained in bulk for transport and/or storage, part of a use system or equipment, or used and/or contained in a manufactured product. These substances are listed in Annex II which is deemed considered as essential part of this CCO for ODS.

## Section 3. DEFINITION OF TERMS

Unless inconsistent with the context or subject matter, the following terms are defined as follows:

**Alternative Substances** - a replacement of ODS with zero Ozone Depleting Potential.

**Article 5 countries** - a developing country that is a Party to the Montreal Protocol, and whose annual consumption of controlled substances is less than 0.3 kg per capita. Such countries are considered to operate under Article 5 of the Montreal Protocol and are thus called 'Article 5 countries'.

**Back conversion** - the act of charging with CFC a system designed for and/or using non-CFC.

**Bureau** - the Environmental Management Bureau.

**Chlorofluorocarbons** (CFCs) - a family of chemicals that contain chlorine, fluorine and carbon; used as refrigerants, aerosol propellants, cleaning solvents and in the manufacture of foam.

**Consumption** - the sum of production plus imports minus exports of ODSs. The amount recycled and reused is not defined as production. Since the Philippines does not produce and export ODSs, the country's consumption is equivalent to imports as measured by ODP weight.

**Controlled substance** - any chemical that is subject to control measures, such as a phase-out requirement pursuant to the schedule of the Montreal Protocol.

**Department** - the Department of Environment and Natural Resources.

**Essential Uses** - ODS usage which are exempted from control measures or phaseout. Exempted use of controlled substances does not count towards a country's consumption. A global exemption has been granted for laboratory and analytical uses. Countries may request essential use exemptions on behalf of individual enterprises, if the specific ODS is either for health, safety or for functioning of society and no acceptable alternative is available. The Meeting of the Parties decides on such requests on a case-by-case basis.

**Flushing** - an act of cleaning a contaminated refrigeration/air conditioning system or system with burnt compressor by pumping or blowing gas, medium/solvent through the system then releasing the compounds to the atmosphere or a system in contact with atmosphere.

**Hydrochlorofluorocarbons** (HCFCs) - a family of hydrogenated chemicals related to CFCs, which contain hydrogen, as well as chlorine, fluorine and carbon. The hydrogen reduces their atmospheric lifetime, making HCFCs less ozone depleting than CFCs, hence, considered as transitional substances.

**Importer** - any person, natural or juridical, that undertakes the entry of an equipment, substance or product into the country that is intended for direct consumption, warehousing, sale or distribution.

**Installation** - any permanent mounting or setting-up of system; or transfer of equipment from one location to another, which involve opening the system to the atmosphere e.g. the piping has to be cut and reconnect or involving fixed installation to water piping or electricity.

**Montreal Protocol** - the Protocol to the Vienna Convention, signed in 1987, which commits Parties to take concrete measures to protect the ozone layer by freezing, reducing or ending production and consumption of controlled substances, as amended.

**Ozone** - a gas whose molecules contain three atoms of oxygen, and whose presence in the stratosphere consitutes the ozone layer that protects life against harmful radiation. Ozone is toxic to humans, animals and plants at high concentrations, and so is a pollutant when it occurs in the lower atmosphere in smog.

**Ozone depletion** - the process by which stratospheric ozone is destroyed by man-made chemicals, leading to a reduction in its concentration.

**Ozone-depleting potential (ODP)** - a measure of a subtance's ability to destroy stratospheric ozone, based on its atmospheric lifetime, stability, reactivity and content of elements that can attack ozone, such as chlorine and bromide. All ODPs are based on the reference measure of 1 for CFC-11.

**Ozone-Depleting Substances (ODS)** - any substance which is controlled under the Montreal Protocol and its amendments. ODSs include CFCs, HCFCs, Halons, carbon tetrachloride, methyl chloroform, hydrobromofluorocarbons, bromochloromethane and methyl bromide. ODS have ozone-depleting potentials greater than 0 and can deplete the stratospheric ozone layer.

**Ozone Layer** - is a thin, fragile shield created as ozone forms and breaks down in the stratosphere. This ozone layer envelopes the entire earth which efficiently and effectively filters and screens most all the harmful ultraviolet (UV) rays like UV-B.

**Party** - a country that signs and/or ratifies an international legal instrument, indicating that it agrees to be bound by the rules set out therein. Parties to the Montreal Protocol are countries that have signed and ratified the Protocol and its relevant Amendments. Article 4 of the Protocol restricts trade with non-Parties.

**Phase out** - the ending of all production and consumption of a chemical controlled under the Montreal Protocol.

**Reclamation** - an act of re-processing the recovered/used refrigerant to a quality/ degree or specification almost the same as that of new refrigerant.

**Recovery** - the removal of a refrigerant in any condition (vapor, liquid or mixed with other substance) from a system and to store it in an external container.

**Recycling** - the reduction of contaminants in used refrigerants by separating oil, removing condensables and using devices such as filter dryers to reduce moisture, acidity and particulate matter.

**R-502** - a blend of refrigerant composed of 51.2% CFC115 and 48.8% HCFC22 commonly used for low temperature refrigeration system.

**Servicing** - any act or repair, maintenance, testing and trouble shooting of parts, including mechanical and electrical components of an existing CFC-using equipment.

**Venting** - the practice of intentionally releasing and/or purging of ODS to the atmosphere.

## Section 4. BAN ON IMPORTATION OF ODS

The ban on importation, except for essential uses, in any amount, of the following substances whether alone or in mixtures as previously enunciated in the Notice to the Public dated December 1998 is hereby affirmed:

a. *Annex A Group 1*

- *CFC 11 and CFC 12 banned for importation for manufacturing products and equipment since 01 January 1998.*
- *CFC 113 since 01 January 1996*
- *CFC 114 and CFC 115, except as component in R-502, since 01 January 1998.*

b. *Annex A Group II since 01 January 1999*

c. *Annex B Group I since 01 January 1999*

d. *Annex B Group II since 01 January 1996*

e. *Annex B Group III since 01 January 1996*

## SECTION 5. PHASE-OUT SCHEDULE AND CONTROLS OF IMPORTATION OF ODS.

5.1 The Department through the Bureau will allow importation of Annex A, Group I & II, Annex B Group I, II & III for:

a) Essential uses as defined by the Montreal Protocol, as amended; and

b) For the servicing requirements of existing equipment.

5.2 Consistent with Section 4 and Section 5.1 hereof, an import quota allocation system shall be implemented by the Department through the Bureau. For this purpose, individual annual import quota per substance under Annex A, Group I specifically CFC-11, CFC-12 and CFC-115 in R-502 shall be determined by the Department through the Bureau.

5.3 In case of mixtures or blends containing any of the substances under Annex A, Group I specifically CFC-11, CFC-12 and CFC-115, the calculation of import quota shall be based on the percent content by weight of these substances.

5.4 The annual import quota is *non-cumulative*, thus, any remainder of the quota allocation for a particular substance is deemed consumed at the end of the calendar year. The total annual imports shall be within the phase-out schedule below:

**For Annex A, Group I (specifically CFC-11, CFC-12 and CFC-115 in R-502):**

a. Starting 01 January 1999, imports shall not exceed the recorded average of the annual importation for the period 1995-1997 by ODP weight;

b. Starting 01 January 2005, imports shall have been reduced by fifty percent (50%) based on the recorded average of the annual importation for the period 1995-1997 by ODP weight.

c. Starting 01 January 2007, imports shall have been reduced by eighty five percent (85%) based on the recorded average of the annual importation for the period 1995-1997 by ODP weight.

d. Starting 01 January 2010, all importation will be prohibited.

**For Annex C:**

a. Starting 01 January 2016, imports shall not exceed the recorded annual importation for year 2015 by ODP weight.

b. Starting 01 January 2040, importation shall have been absolutely prohibited.

5.5 Beginning 01 January 2005, all importation for CFC-11 will be absolutely prohibited.

5.6 Beginning 01 January 2010, all kinds of importation of substances, except essential use (alone or in mixtures) under Annex A, Group I as provided under Section 5.2 will be prohibited.

5.7 The Department, through the Bureau, may accelerate the phase out schedules for servicing as may be deemed necessary through the issuance of an appropriate policy instrument.

## Section 6. REGISTRATION OF IMPORTERS and APPLICATION OF PRE-SHIPMENT IMPORTATION CLEARANCE FOR ODS

6.1 Any person, natural or juridical, who imports ODS (regardless of source as allowed under the agreements of the Montreal Protocol, as amended) for any industry or activity (for example industries/activities listed under ANNEX III) must register with the Department through the Bureau. Certificates of Registration are valid only for one (1) year. It is, therefore, required that the same be renewed every year.

6.2 A Certificate of Registration may be granted and renewed only upon showing proof of the following:

(a) Attendance to DENR-Bureau Seminar regarding understanding and appreciation of the role of these substances in depleting the stratospheric ozone, and its consequences by the firm's chemical handler.

(b) Capability to take effective measures, including the necessary equipment, technology, training and infrastructure, for the purpose of effectively handling ozone-depleting substances including responsible reuse of refrigerants, minimizing their emissions, and ultimately phasing out their use by replacing with substitutes/alternatives duly recognized and certified by the Department through the Bureau.

(c) Commitment to participate in a system to re-use refrigerants under a reclamation scheme duly approved by the Department through the Bureau.

(d) Has complied with all the relevant provisions of Republic Act (RA) No. 6969 and its implementing rules and regulations and other pertinent environmental laws and regulations.

6.3 Application for registration must include the following documentary requirements, to wit:

(a) Duly accomplished registration form;

(b) Copy of the Environmental Compliance Certificate or Certificate of Non-coverage issued by the appropriate office of the Department;

(c) Whether the applicant is an Importer-Distributor or an Importer-End user;

(d) Certified copy of the Securities and Exchange Commission (SEC), Cooperatives Development Authority (CDA), or Department of Trade and Industry (DTI) Registration and updated list of its officers;

(e) Copy of the Material Safety Data Sheet (MSDS) from the manufacturing firm every time an importer applies for registration of a new chemical;

(f) Description of the applicant's handling procedure, safety precautions and emergency response for the chemical; and

(g) Other information and/or documents as may be required by the Department and the Bureau.

6.4 For importation covered by Section 5.2 hereof, the Department through the Bureau shall, upon evaluation of application, determine the annual quota per substance for every importer.

6.5 Registered importers must secure pre-shipment importation clearance from the Department through the Bureau prior to the entry of ODS listed in Section 2 and Annex II hereof in any area within the Philippine Territory. As such, any shipment not covered by an importation clearance shall be deemed illegally imported and shall be confiscated and forfeited in favor of the Government. Likewise, any transaction not covered under the terms and conditions of the Pre-Shipment Importation Clearance shall be considered a violation of this CCO.

6.6 Application for importation clearance must include the following, to wit:

6.6.1 Any application for importation clearance for substances under Section 2 must be within the prescribed quota pursuant to Section 5.2 hereof.

6.6.2 Duly accomplished application forms shall only be received for processing after payment of prescribed application fees and charges.

6.6.3 Application forms are accomplished in three (3) copies -- i.e., the original copy shall be filed with the Department through the Bureau for assessment and evaluation, and duplicate copy shall serve as reference document of the applicant and the third copy shall be filed in the Philippine Ozone Desk.

6.6.4 Application forms shall only be processed when the following information are provided, to wit:

a. Commercial name or the trade/brand name of the substance as usually promoted/marketed by the manufacturers;

b. Generic name of the substance;

c. Name of the manufacturing company;

d. Port of loading or the country or port immediately before the substance enters the Philippine territory;

e. Exporting company or any entity that transacts or brokers the chemical substance from the manufacturer to the importing company;

f. Current inventories of the substance that is the subject of the application for importation clearance, including the area/building within which the same is stored either for further transshipment or distribution.

6.6.5 All accomplished application forms must include the following documents:

a. Proof that application fees are paid;

b. Copy of the Material Safety Data Sheet (MSDS) from the manufacturing firm every time an importer applies for clearance of a new chemical;

c. Photocopy of the Pro-forma Invoice;

d. Description of applicant's handling procedure, safety precautions and emergency response for the chemical;

e. Copy of the accomplished Original Record of Actual Arrival of Shipment accompanied by a photocopy of the Bill of Lading issued by the Carrier (shipping/ transport contractor) of the most recent importation of the chemical made by the applicant (this requirement is not applicable to first time importer);

f. Summary of Transactions of the most recent importation clearance issued on the same chemical applied for (not applicable to new importers);

g. Import Entry and Internal Revenue Declaration;

h. List of Intended Buyers and/or End-Users; and

i. Any other documents deemed appropriate and necessary by the Department and the Bureau.

6.7 Importers shall distribute these substances only to registered/accredited dealers, retailers, resellers and service providers pursuant to Section 7 hereof or those entities utilizing these substances for essential uses as duly certified by the Department through the Bureau.

6.8 Clearances shall only be issued on a per substance per shipment basis.

6.9 Clearances shall be issued in three copies, one each for the Department, the Bureau of Customs, and the importer.

6.10 The validity of Pre-Shipment Importation Clearance is, as follows: a) CFCs - within the calendar year it was issued, and b) HCFCs - must not exceed six (6) consecutive calendar months from the date of issuance.

## Section 7. REGISTRATION OF DEALERS, RETAILERS AND RE-SELLERS OF ODS

7.1 There is hereby a system of accreditation established to determine the capability of any person, natural or juridical, in handling and using these substances in any of the forms and with respect to any industry or activity listed under ANNEX III. Certificates of Registration are valid only for one (1) year. It is, therefore, required that the same be renewed every year.

7.2 A Certificate of Registration may be granted and renewed only upon showing proof of the following:

(a) Attendance to DENR-Bureau Seminar regarding understanding and appreciation of the role of these substances in depleting the stratospheric ozone, and its consequences by the firm's chemical handler.

(b) Capability to take effective measures, including the necessary equipment, technology, training and infrastructure, for the purpose of effectively handling ozone-depleting substances including responsible re-use of refrigerants, minimizing their emissions, and ultimately phasing out their use by replacing with substitutes/alternatives duly recognized and certified by the Department through the Bureau.

(c) Commitment to participate in a system to re-use refrigerants under a reclamation scheme duly approved by the Department through the Bureau.

(d) Has complied with all the relevant provisions of Republic Act (RA) No. 6969 and its implementing rules and regulations and other pertinent environmental laws and regulations.

7.3 Application for registration must include the following documentary requirements, to wit:

(a) Duly accomplished registration form;

(b) Certified copy of the Securities and Exchange Commission (SEC), Cooperatives Development Authority (CDA), Department of Trade and Industry (DTI) Registration, or local government permits and clearances, and updated list of its officers;

(c) Other information and/or documents as may be required by the Department and the Bureau.

7.4 Only those registered or accredited by the Department through the Bureau and by the DTI may purchase, re-sell, distribute and utilize for allowable uses the ODS listed under Section 2. The ODS may only be sold or distributed to service providers that are duly accredited and certified under Section 8.

7.5 Dealers and retailers shall also adhere to a "Good Practice" Code for Refrigeration and Airconditioning to be developed as condition for the issuance and renewal of registration.

## Section 8. CERTIFICATION OF SERVICE PROVIDERS AND ACCREDITATION OF SERVICE SHOPS OF ODS-USING EQUIPMENT

8.1 Service shops shall be duly accredited by the DTI in accordance with guidelines, rules and regulations issued for the purpose. Service providers/technicians shall be certified by the Technical Education and Skills Development Authority (TESDA) based on their level of technical and skills competencies.

8.2 Service providers and service shops should have capability to take effective measures, including the necessary equipment, technology, training and infrastructure, for the purpose of effectively handling ozone-depleting substances, including responsible re-use of refrigerants, minimizing their emissions and ultimately phasing out their use by replacing with substitutes/alternatives duly recognized and certified by the Department and the Bureau.

8.3 Service providers and service shops shall also adhere to a "Good Practice" Code for Refrigeration and Airconditioning to be developed as a condition for the issuance and/or renewal of accreditation and/or certification.

## Section 9. RECORDS KEEPING

9.1 All importers, distributors, dealers/retailers must keep records of all transactions and prepare annual report for submission to the Bureau by 31 January of the following year. Service providers shall keep records of all transactions for validation purposes.

9.2 Records retained must be available for inspection at any time, upon request, by an authorized officer of the Department through the Bureau or by other authorized government agency.

## Section 10. CONFIDENTIAL BUSINESS INFORMATION

10.1 Any person, natural or juridical, submitting a report under this CCO may assert a business confidentiality claim for all or part of the report,

pursuant to Section 40(1) of DAO No. 29 series of 1992. It is the burden of the reporting person to justify the confidentiality claim. The Department may consider that the information is condfidential and treat the reported information accordingly.

10.2 When confidentiality is not applied for, the report shall be considered as a public document, provided that any disclosure of information subject to this section and Sections (40)1 and 40(2) of DAO No. 29 series of 1992, shall be done only in cases allowed under Section 40(3) of the same.

**Section 11. PROHIBITED ACTS**

Aside from the relevant provisions in sections 4 to 10, the following acts shall constitute a violation of this CCO:

(a) Back conversion;

(b) Installation of CFC-using systems;

(c) Sale and use of small disposable containers (less than 1 kg) with CFCs;

(d) Importation or manufacturing or placing in the market of products or equipment containing Halons or CFCs, except metered dose inhalers;

(e) Use of CFCs in Mobile Air Conditioners (MACs) starting 2006 in motor vehicles manufactured and/or initially registered from 1999 onwards, and starting 2012 in all motor vehicles;

(f) Use of CFC-11 as blowing agent for foam manufacturing;

(g) Intentional release/venting of ODS when servicing equipment; and

(h) Flushing with ODSs.

**Section 12. PENAL PROVISIONS**

Any person, natural or juridical, who violates any provision of this CCO shall be administratively and criminally liable pursuant to Sections 43 and 44 of DAO No. 29 series of 1992 and Section 13, 14 and 15 of RA No. 6969 and other applicable laws. Such violations will also constitute grounds for cancellation of certificate of: a) registration of importers, dealers, retailers & resellers, b) accreditation of service shops, and c) competency of technicians.

**Section 13. SEPARABILITY CLAUSE**

If a competent court declares any provision of this CCO void or unconstitutional, the other provisions hereof shall continue to be in force and effect as if the

section or provision so declared void or unconstitutional had never been incorporated herein.

**Section 14. REPEALING CLAUSE**

DAO Nos. 2000-18 and 2002-22 and all other Department orders and issuances inconsistent herewith are hereby repealed or modified accordingly.

**Section 15. EFFECTIVITY**

This CCO shall take effect fifteen (15) days after its publication in the National Registration Center or in at least two (2) newspaper of general circulation, except for Sections 6.7 and 7.4 which will enter into force starting January 1, 2005.

**ELISEA G. GOZUN**
Secretary

## ANNEX I
## (Footnote to Paragraph 4, Article 1 of the Montreal Protocol)

The First Meeting of the Parties decided in Dec. 1/12A to agree to the following clarification of the definition of controlled substances (in bulk) in Article I, paragraph 4 of the Montreal Protocol:

a. Article I of the Montreal Protocol excludes from consideration as a "controlled substance" any listed substance, whether alone or in a mixture, which is in a manufactured product other than a container used for transportation or storage;

b. Any amount of a controlled substance or a mixture of controlled substances which is not part of use system containing the substance is a controlled substance for the purpose of the Protocol (i.e. a bulk chemical);

c. If a substance or mixture must first be transferred from a bulk container to another container, vessel or piece of equipment in order to realize its intended use, the first container is in fact utilized only for storage and/or transport, and the substance or mixture so packaged is covered by Article I, paragraph 4 of the Protocol;

d. If, on another hand, the mere dispensing of the product from container constitutes the intended use of the substance, then that container is itself part of use system and the substance contained in it is therefore excluded from definition;

e. Example of use system to be considered as products for the purposes of Article I, paragraph 4 are inter alia;

   i. An aerosol can;

   ii. A refrigerator or a refrigerating plant, air conditioner or air-conditioning plant, heat pump, etc.;

   iii. A polyurethane prepolymer or any foam containing, or manufactured with, a controlled substance;

   iv. A fire extinguisher (wheel or hand-operated) or an installed container incorporating a release device (automatic or hand-operated);

f. Bulk containers for shipment of controlled substances and mixtures containing controlled substances to user include (numbers being illustrative), inter alia;

   i. Tanks installed on board ship;

   ii. Rail tank cars (10-40 metric tons);

   iii. Road tankers (up to 20 metric tons);

iv. Cylinders from 0.4 kg. to one metric ton;

v. Drums (5-300 Kg);

g. Because containers of all sizes are used for either bulk or manufactured products, distinguishing on the basis of size is not consistent with the definition in the Protocol. Similarly, since containers for bulk or manufactured products can be designed to be rechargeable or not rechargeable, - rechargeability is not sufficient for a consistent definition;

h. If the purpose of the container is used as the distinguishing characteristic as in the Protocol definition, such as CFC or Halon-containing products as aerosol spray cans and fire extinguishers, whether of the portable or the flooding type, would therefore be excluded, because it is the mere release from such containers which constitute the intended use.

The Second Meeting of the Parties decided in Dec. 11/4 to clarify the definition of "controlled substance" in paragraph 4 of Article I of the Protocol so that it is understood to include the isomers of such substances except as specified in the relevant Annex.

## ANNEX II
## (List of Controlled Substances of the Montreal Protocol)

### ANNEX A: CONTROLLED SUBSTANCES

| Group I | Substance | Ozone-Depleting Potential | Common Uses |
|---|---|---|---|
| $CFCl_3$ | CFC-11 | 1.0 | Refrigerant<br>Blowing agent<br>Propellant |
| $CF_2Cl_2$ | CFC-12 | 1.0 | Refrigerant<br>Propellant<br>Blowing agent |
| $C_2F_3Cl_3$ | CFC-113 | 0.8 | Cleaning agent<br>Solvent |
| $C_2F_4Cl_2$ | CFC-114 | 1.0 | Cleaning agent<br>Solvent |
| $C_2F_5Cl$ | CFC-115 | 0.6 | Refrigerant |
| **Group II** | **Substance** | **Ozone-Depleting Potential** | **Common Uses** |
| $CF_2BrCl$ | (halon-1211) | 3.0 | Fire Extinguishant |
| $CF_3Br$ | (halon-1301) | 10.0 | Fire Extinguishant |
| $C_2F_3Cl_3$ | (halon-2402) | 6.0 | Fire Extinguishant |

## ANNEX B: CONTROLLED SUBSTANCES

| Group I | Substance | Ozone-Depleting Potential | Common Uses |
|---|---|---|---|
| $CF_3Cl$ | CFC-13 | 1.0 | Refrigerant |
| $C_2FCl_5$ | CFC-111 | 1.0 | |
| $C_2F_2Cl_4$ | CFC-112 | 1.0 | |
| $C_3FCl_7$ | CFC-211 | 1.0 | |
| $C_3F_2Cl_6$ | CFC-212 | 1.0 | |
| $C_3F_3Cl_5$ | CFC-213 | 1.0 | |
| $C_3F_4Cl_4$ | CFC-214 | 1.0 | |
| $C_3F_5Cl_3$ | CFC-215 | 1.0 | |
| $C_3F_6Cl_2$ | CFC-216 | 1.0 | |
| $C_3F_7Cl$ | CFC-217 | 1.0 | |

| Group II | Substance | Ozone-Depleting Potential | Common Uses |
|---|---|---|---|
| $CCl_4$ | Carbon tetrachloride | 1.1 | Cleaning Agent<br>Solvent |

| Group III | Substance | Ozone-Depleting Potential | Common Uses |
|---|---|---|---|
| $C_3H_3Cl_3$ | 1,1,1-trichloroethane/ methyl chloroform | 0.1 | Cleaning Agent<br>Solvent |

## ANNEX C: CONTROLLED SUBSTANCES

| Group I | Substance | Ozone-Depleting Potential[1] | Common Uses |
|---|---|---|---|
| $CHFCl_2$ | HCFC-21 | 0.04 | |
| $CHF_2Cl$ | HCFC-22 | 0.055 | Refrigerant |
| $CH_2FCl$ | HCFC-31 | 0.02 | |
| $C_2HFCl_4$ | HCFC-121 | 0.01-0.04 | |
| $C_2HF_2Cl_3$ | HCFC-122 | 0.02-0.08 | |
| $C_2HF_3Cl_2$ | HCFC-123 | 0.02-0.06 | Fire Extinguishant |
| $CHCl_2CF_3$ | HCFC-123 | 0.02 | Refrigerant<br>Blowing Agent |
| $C_2HF_4Cl$ | HCFC-124 | 0.02-0.04 | |
| $CHFClCF_3$ | HCFC-124 | 0.022 | Refrigerant<br>Blowing Agent |
| $C_2H_2FCl_3$ | HCFC-131 | 0.007-0.05 | |
| $C_2H_2F_2Cl_2$ | HCFC-132 | 0.008-0.05 | |
| $C_2H_2F_3Cl$ | HCFC-133 | 0.02-0.06 | |
| $C_2H_3FCl_2$ | HCFC-141 | 0.005-0.07 | |
| $CH_3CFCl_2$ | HCFC-141b | 0.11 | Blowing Agent |
| $C_2H_4F_2Cl$ | HCFC-142 | 0.008-0.07 | |
| $CH_3CF_2Cl$ | HCFC-142b | 0.065 | |
| $C_2H_4FCl$ | HCFC-151 | 0.003-0.005 | |
| $C_3HFCl_6$ | HCFC-221 | 0.015-0.07 | |
| $C_3HF_2Cl_3$ | HCFC-222 | 0.01-0.09 | |
| $C_3HF_3Cl_4$ | HCFC-223 | 0.01-0.08 | |

*[1] Where a range of ODP is indicated, the highest value in that range shall be used for the purpose of the Montreal Protocol. The ODPs listed as a single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isometric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.*

| Group I | Substance | Ozone-Depleting Potential | Common Uses |
|---|---|---|---|
| $C_3HF_4Cl_3$ | HCFC-224 | 0.01-0.09 | |
| $C_3HF_3Cl_2$ | HCFC-225 | 0.02-0.07 | Cleaning Agent Solvent |
| $CF_3CF_2CHCl_2$ | HCFC-225ea | 0.025 | Cleaning Agent Solvent |
| $CF_2ClCF_2CHClF$ | HCFC-225eb | 0.033 | Cleaning Agent Solvent |
| $C_3HF_6Cl$ | HCFC-226 | 0.02-0.10 | |
| $C_3H_2FCl_3$ | HCFC-231 | 0.05-0.09 | |
| $C_3H_2F_2Cl_4$ | HCFC-232 | 0.08-0.10 | |
| $C_3H_2F_3Cl_3$ | HCFC-233 | 0.007-0.23 | |
| $C_2H_3F_4Cl_2$ | HCFC-234 | 0.01-0.28 | |
| $C_3H_3F_5Cl$ | HCFC-235 | 0.03-0.52 | |
| $C_3H_3FCl_4$ | HCFC-241 | 0.004-0.09 | |
| $C_3H_3F_2Cl_3$ | HCFC-242 | 0.005-0.13 | |
| $C_3H_3F_3Cl_2$ | HCFC-243 | 0.007-0.12 | |
| $C_3H_3F_4Cl$ | HCFC-244 | 0.009-0.14 | |
| $C_3H_4FCl_3$ | HCFC-251 | 0.001-0.01 | |
| $C_3H_4F_2Cl_2$ | HCFC-252 | 0.005-0.04 | |
| $C_3H_4F_3Cl$ | HCFC-253 | 0.003-0.03 | |
| $C_3H_5FCl_2$ | HCFC-261 | 0.002-0.02 | |
| $C_3H_5F_2Cl$ | HCFC-262 | 0.002-0.02 | |
| $C_3H_6FCl$ | HCFC-271 | 0.001-0.03 | |

| Group II | Substance | Ozone Depleting Potential | Common Uses |
|---|---|---|---|
| $CHFBr_2$ | (HBFCs) | 1.00 | |
| $CHF_2Br$ | | 0.74 | |
| $CH_2FBr$ | | 0.73 | |
| $C_2HFBr_4$ | | 0.0-0.8 | |
| $C_2HF_2Br_3$ | | 0.5-1.8 | |
| $C_2HF_3Br_2$ | | 0.4-1.6 | |
| $C_2HF_4Br$ | | 0.7-1.2 | |
| $C_2H_2FBr_3$ | | 0.1-1.1 | |
| $C_2H_2F_2Br_2$ | | 0.2-1.5 | |
| $C_2H_2F_3Br$ | | 0.7-1.6 | |
| $C_2H_3FBr_2$ | | 0.1-1.7 | |
| $C_2H_3F_2Br$ | | 0.2-1.1 | |
| $C_2H_4FBr$ | | 0.07-0.1 | |
| $C_3HFBr_6$ | | 0.3-1.5 | |
| $C_3HF_2Br_5$ | | 0.2-1.9 | |
| $C_3HF_3Br_4$ | | 0.3-1.8 | |
| $C_3HF_4Br_3$ | | 0.5-2.2 | |
| $C_3HF_5Br_2$ | | 0.9-2.0 | |

| Group II | Substance | Ozone Depleting Potential | Common Uses |
|---|---|---|---|
| $C_3HF_4Br$ | | 0.7-3.3 | |
| $C_3H_2FBr_5$ | | 0.1-1.9 | |
| $C_3H_2F_2Br_4$ | | 0.2-2.1 | |
| $C_3H_2F_3Br_3$ | | 0.2-5.6 | |
| $C_3H_2F_4Br_2$ | | 0.3-7.5 | |
| $C_3H_2F_5Br$ | | 0.9-1.4 | |
| $C_3H_3F_2Br_3$ | | 0.1-3.1 | |
| $C_3H_3F_3Br_2$ | | 0.1-2.5 | |
| $C_3H_3F_4Br$ | | 0.3-4.4 | |
| $C_3H_4FBr_3$ | | 0.03-0.3 | |
| $C_3H_4F_2Br_2$ | | 0.1-1.0 | |
| $C_3H_4F_3Br$ | | 0.07-0.8 | |
| $C_3H_5FBr_2$ | | 0.04-0.4 | |
| $C_3H_5F_2Br$ | | 0.07-0.8 | |
| $C_3H_6FBr$ | | 0.02-0.7 | |

## ANNEX III
## Example list of Industries and Activities
## (Derived from Annex D of the Montreal Protocol)

| Industry | Activity |
|---|---|
| Dry cleaning | Service, operation, and installation and decommissioning |
| Motor vehicle air-conditioning | Service and installation |
| Commercial and industrial refrigeration and air-conditioning | Service, installation and decommissioning |
| Domestic refrigeration/air-conditioning | Service |
| Fixed flooding fire protection | Service, design, installation, commissioning and decommissioning |
| Portable fire extinguisher | Service, and decommissioning |


Department of Environment and Natural Resources
Environmental Management Bureau
**PHILIPPINE OZONE DESK**
National CFC Phase-out Plan Project Management Unit
DENR Compound Visayas Avenue, Diliman, Quezon City
Tel.nos. 925-2344 • 928-1244 • 426-4338
E-mail: ozonewatch@vasia.com
Website: www.emb.gov.ph/philozone.htm