1 Status
Malaysia ratified the Montreal Protocol on August 29, 1989, the London Amendment on June 16, 1993 and the Copenhagen Amendment on August 5, 1993. It is an Article 5 country.

2 ODS Focal Point
The Department of Environment, DOE (Jabatan Alam Sekitar, JAS) in the Ministry of Science, Technology and Environment has the main responsibility for implementing ODS phase out strategies.

Main contact person:
Mr. Lee Choong Min, Principal Assistant Director
Office for Project Management Under the Montreal Protocol, PMO
(Pejabat Pengurusan Projek Protokol Montreal)
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Jalan Raja Laut
50662 Kuala Lumpur, Malaysia
Tel: (60-3) 294 7844; 296 4468 (dir.)
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E-mail: lcm@jas.sains.my
Internet: http://www.jas.sains.my

3 Regulations and Guidelines

3.1 Regulations
The following regulations are used to control ODS:

This Order was revised on November 17, 1994 by Customs Duty Order (Amendment)(No. 11) 1994 (Perintah Duti Kastam (Pindaan) (No. 11) 1994). Cited here as Act 235, Amend. 11.
4 Environmental Quality (Refrigeration Management) Regulation, 1999 (entered into force on January, 1 2000). Cited here as Refrigeration EQR.
5 Environmental Quality (Halon Management) Regulation, 1999 (entered into force January 1, 2000). Cited here as Halon Management EQR.

3.2 Guidelines
In addition, the following guidelines are used to control ODS:

1 Administrative Order, 1990 (Fire Service Department, FSD) (Arahan Pentadbiran, 1990), June 1 1990.
2 Administrative Guideline, 1992, December, 1992
4 ODS Solvents, DOE, April 1994.
4 Controls on ODS in Bulk (other than methyl bromide)

4.1 Production, import, sale and export of ODS in bulk

Import permits are required for the import of CFCs, halons, carbon tetrachloride and 1,1,1-trichloroethane, under the Approved Permit (AP) system (Act 235, Amend. 4 and 11).

Applications for import permits are handled and approved by the Ministry of International Trade and Industry, MITI (Kementerian Perdagangan Antarabangsa Dan Industri). An Advisory Committee of Applications for Permits to Import ODS was established under MITI.

Contact person:
Dr. K.J. John, Director of Industrial Policy
Industrial Policy
Ministry of International Trade and Industry
Tel: (60-3) 651 0033
Fax: (60-3) 651 2302.

All importers must register with MITI. The import quota is reduced annually by 10 to 15 per cent until phased out completely in 2010. Importers cannot transfer their permits to other companies.

All suppliers, wholesalers and other distributors selling ODS must keep written records of sales (Guidelines on Control Measures for the Protection of the Ozone Layer).

Malaysia’s AP system does not cover export. However, under the Halon Management EQR a permit from the Director General is required to export recycled halon from the country. Permits will only be issued if the Director General is convinced that the halon is intended for destruction or reclamation under a process that is not available in Malaysia, and that afterwards the halon or other resulting product will be brought back into Malaysia (Halon Management EQR, section 16). The Refrigerant Management EQR prohibits the export of CFC-11, 12, 113, 114 and 115 unless export occurs under approval from the Director General, who may only approve the export under the same conditions as mentioned above in relation to recycled halon (Refrigerant Management EQR, sect. 7)

4.2 Monitoring import of ODS

ODS import is monitored through information obtained in connection with the approval of import permits, through information from customs and the Statistic Department and through voluntary information from trade associations and importing companies.

Since 1999 importers and distributors have been required to submit an Importer Declaration Form annually to MITI to monitor the phase out of ODS. On the form they must submit what quantities and types of ODS they have imported during the year and from what country. Importers must state what sector they belong to and what distributor or end-user they have sold the substances to. Distributors must also specify their sector and name their end-users.
Customs procedures have been adopted to facilitate the monitoring of ODS import, by introducing special declarations and by adjusting customs codes (Act 235, Amend. 35 and 11). Act 235 Amend. 11 covers HCFCs, HBFCs and methyl bromide ("Annex C and E substances"), as well as CFCs, halons, carbon tetrachloride and 1,1,1-trichloroethane ("Annex A and B substances").

The Department of Statistic, Malaysia (Jabatan Perangkaan, Malaysia) compiles information on ODS import, based on information from customs declaration forms.

Contact person:
Mr. Abdul Rahman Muhammad, Statistic Officer
Trade Affairs, Department of Statistic
Tel: (60-3) 294 4264
Fax: (60-3) 293 7471

The Department of Environment receives and checks data from the Department of Statistics, Customs declaration forms, information from the AP system and supplementary data from users and importers.

4.3 ODS import from non-party countries
Under the AP system, no import from non-party countries is approved.

5 Controls on Import and Sale of Products Containing, Made with or Using ODS
There are no regulations banning import or sale of any products containing, made with or requiring ODS for use. No special permits are required for import or sale of such products.

6 Controls on the Use of ODS (other than methyl bromide) - "End Use Controls"

6.1 Regulations

6.1.1 CFCs
The use of CFC 11, 12, 13, 111-115 and 211-217 (Annex A and B substances) is prohibited in:

Aerosols as a propellant in:
- medical drugs: January 1, 1999
- other aerosols: June 1, 1994

Foam Blowing agent in:
- extruded polystyrene foam: July 1, 1995
- thermoformed plastic packaging: July 1, 1995
- moulded flexible polyurethane foam: July 1, 1995
- rigid polyurethane foam: January 1, 1999
- other: June 1, 1994

Refrigerants:
- new installations of chillers and refrigeration systems: January 1, 2000

6.1.2 Halons
From June 1 1990, new installations of halon systems have been prohibited unless written consent is obtained from the Fire Service Department (FSD Administrative Order, 1990).

P.U./A/434, Art. 5 p. 1 b prohibits the use of halon 1211, 1301 and 2402 in portable aerosol fire extinguishers, June 1 1994.

The Halon Management EQR prohibits the use of new portable halon fire extinguishers and the installation of new halon fire extinguishing systems (Halon Management EQR sect. 4 and 7). An old portable extinguisher may not be refilled (Halon Management EQR sect. 6). The Director General of Environmental Quality may grant a licence of exemption from these rules if the use or installation
meets the essential use criteria stated in schedule 2 to the regulation (Halon Management EQR sect. 9). Essential uses are defined by the regulation (schedule 2) as:

- Where there is danger to human life either in an installation where human occupancy is critical and evacuation is not possible or where the continued operation of the installation is critical to protect human life and acceptable alternative means of fire protection are unavailable.
- In an installation critical to the community where the loss of equipment or services may have far-reaching consequences and acceptable alternative means for fire protection is unavailable.
- When, in the opinion of the Director General, the denial of use is not reasonably practicable or would be contrary to the spirit of the act.

An owner of halon should inform the Director General of any halon in his or her possession (Halon Management EQR, sect. 5). Testing of fire equipment containing halon may only take place with the approval of the Director General, who may impose conditions on the approval (Halon Management EQR section 8). Discharges from existing fire protection systems containing halon are prohibited except for the purpose of extinguishing a fire (Halon Management EQR sect. 12). After a discharge from a fixed system the occupier of the premises in which the equipment is installed must inform the Director General of the discharge (Halon Management EQR sect. 13).

When servicing any fire extinguishing equipment it is the responsibility of the owner or the person who is otherwise in control of the equipment to ensure that any halon that would otherwise be emitted from the equipment is reclaimed (Halon Management EQR, sect. 15).

6.1.3 Carbon tetrachloride and 1,1,1-trichloroethane

The prohibition in P.U./A/434 on use in aerosols and as foam blowing agents (see Sect. 6.1.1) applies also to carbon tetrachloride and 1,1,1-trichloroethane (P.U./A/434, Art. 2, 3, 5 and the schedule).

6.1.4 HCFCs and HBFCs

There are no regulations banning the use of HCFCs and HBFCs.

6.1.5 Exemptions

Exemptions from the prohibitions on use of ODS in aerosols and as foam blowing agents can be granted if the use is essential for the protection of human health or safety and no alternatives are available. Such cases are handled by DOE. Contact person, see Sect. 2.

The DOE handles exemptions for the use of halons in co-operation with the Fire Rescue Department (Jabatan Perkhdimatan Bomba, Malaysia).

Contact person:
Mr. Wan Mohd Nor Ibrahim, Principal Assistant Director
Fire Rescue Department,
Tel: (60-3) 8888 0036
Fax: (60-3) 8888 0019

6.2 Governmental Guidelines

The use of ODS is also governed by the following governmental guidelines (for full name, see Sect. 3):

- The MIDA Administrative Guideline, encourages the use of CFC free technology and discourages any use of CFCs in new manufacturing.
- The DOE Guidelines on Control Measures for the Protection of the Ozone Layer, require that certain codes of practice should be followed and that persons purchasing ODS for specified activities within the dry cleaning, refrigeration/air-conditioning and fire protection sectors should be registered, etc.
- The DOE Guidelines on ODS Solvents, provides recommendations to solvent users on actions needed to reduce and eliminate the use of CFC 113, 1,1,1-trichloroethane and carbon tetrachloride.
- The DOE Guidebook for Mechanics; Reduction and Recovery of CFC in MAC, promotes recovery and reduction of the use of CFC 12 in mobile air-conditioning (MACs).
7 Controls on Service and Installation of Refrigeration and Air-conditioning Equipment

The controls on service and installation of refrigeration and air-conditioning equipment using ODS refrigerants are primarily governed by the DOE Guidelines on Control Measures for the Protection of the Ozone Layer. CFCs from air-conditioning and refrigeration units should be recovered and recycled, securely stored or returned to the distributor in connection with service, maintenance and decommissioning. Codes of practice should be followed for design and service. There are no requirements on special qualifications and equipment needed to service or install refrigeration and air-conditioning equipment in the Guidelines, but anybody purchasing ODS for service, maintenance and installations of refrigeration/air-conditioning units should be registered.

The Refrigerant Management EQR requires that service technicians working with equipment containing CFC 11, 12, 113, 114 or 115 as a refrigerant must have gone through approved training for the task and have access to approved recovery and recycling equipment (Refrigerant Management EQR, section 5). The regulation mandates the Director General to keep a register of approved recovery and recycling courses and approved equipment. Nobody may vent an ODS refrigerant into the atmosphere except with an approval from the Director General (Refrigerant Management EQR, sect. 6).

Air-conditioning manufacturers have a responsibility to conducting retrofitting training for anybody involved in retrofitting (Refrigerant Management EQR, sect. 9). In addition, they have a duty to provide technical expertise and assistance to retrofitting training programmes organised by the government (Refrigerant Management EQR, sect. 10).

A national code of practice for mobile air-conditioning operators is under preparation.

DOE handles the implementation of the guidelines and the Refrigerant Management EQR.

The DOE has an established co-operation with the following trade association aimed at promoting the reduction of use and emissions of ODS refrigerants:

ASHRAE (M) Chapter
Tel: (60-3) 7474 661
Fax: (60-3) 7474 460

ASHRAE (M) Chapter will be engaged in the implementation of a new Refrigeration Code of Good Practice to reduce emissions and use of ODS refrigerants, with particular regard to the building of air-conditioners.

8 Controls on Methyl Bromide

Methyl bromide is classified as a pesticide and governed by the regulations generally applicable to pesticides (i.e. the Pesticides Act, 1979 No149 and the Hydrogen Cyanide Act, 1953 No 260, revised in 1981).

The Pesticides Act restricts the import of methyl bromide by means of a licencing system. However, the amount of methyl bromide imported is not controlled under the AP system for ODS import control. All importers of methyl bromide must register with the Pesticide Board (required under the Poison Act, since 1967). Vendors of methyl bromides must also be registered under the Pesticides Act.

Under Act 235 Amend. No. 11, methyl bromide is assigned a separate customs code to facilitate the monitoring of methyl bromide import.

The Hydrogen Cyanide Act requires methyl bromide to be handled by licenced fumigators.

The overall responsibility for strategies to limit use and emissions of methyl bromide with regard to its effects on the ozone layer rests with the Department of Agriculture, which also monitors the implementation of the methyl bromide phase out programme.

Contact person:
Mr. Mokhtarud-din bin Hussain, Agriculture Officer
Quarantine Division
Department of Agriculture
Tel: (60-3) 298 3077
Fax: (60-3) 298 3646
9 Voluntary Agreements

There are no formal voluntary agreements with industry on actions to phase out ODS.

However, seven sector specific working groups under an ODS Working Groups Committee were formed by the Government in 1990 to formulate strategies to reduce and eliminate the use of ODS. As a result, the Country Programme and strategies to phase out ODS were developed in co-operation with industry represented in the industrial working groups.

The DOE has also established co-operation with the following trade associations, in addition to the one mentioned under Section 7:

Federal Malaysian Manufacturers (FMM)
Wisma FMM, No 3Persiaran Dagang
PIJU 9 Bandar Sri Damansara
52200 Kuala Lumpur
Tel: (60-3) 6361 211
Fax: (60-3) 6341 266 / 6347 288

Malaysia International Chambers of Commerce and Industry (MICCI)
Tel: (60-3) 254 2677
Fax: (60-3) 256 1929

10 Economic Incentives and Disincentives

Malaysia has introduced duty exemptions for the recovery and recycling of machines and the import of HFC 134a and tax reductions for the manufacture and imports of environmental protective equipment, to encourage the use of alternatives to ODS. The incentives are enacted under the Customs Act, 1967, with the Ministry of Finance as the responsible government authority.

Contact person:
Ms. Komalan Kesawan
Finance Division
Ministry of Finance (Kementerian Kewangan Malaysia)
Tel: (60-3) 2582 535
Fax: (60-3) 2535 707

The Malaysian Industry Development Authority (MIDA) is also involved in the implementation of tax reductions.

Contact person:
Ms. Chew Kim Yoom
Tel: (60-3) 255 3633
Fax: (60-3) 255 7970

There are no economic disincentives enacted to discourage use of ODS.

11 Labelling Requirements

In March 1996 Malaysia introduced a “Certification and Labelling Scheme for ODS”, encouraging the labelling of products or equipment which contain or are made with ODS or require ODS for their use. The DOE Guidelines on Control Measures for the Protection of the Ozone Layer also states that all vessels and containers containing ODS (including HCFCs, HBFCs and methyl bromide) should be labelled with the name of the substance contained in the vessel or container.

Contact person:
Mr. Abdul Aziz Long, Manager
Environmental Management System - Certification Unit
Standard and Industrial Research Institute of Malaysia (SIRIM)
Persiaran Dato’ Kenteri
P.O. Box 7035
40911 S. Alam, Malaysia
Tel: (60-3) 5567 928
Fax: (60-3) 5567 932
E-mail: azil@sirim.my; Internet: http://www.sirim.my

Malaysia has no requirements for mandatory verification of products which are labelled as not containing or made without ODS.
12 Criteria for Selection of Alternatives

Malaysia has established governmental guidelines for the selection of acceptable alternatives to ODS. The general criteria are spelled out in the Significant New Alternates List (SNAL), see Section 3. Only suppliers and distributors need official endorsement. A SNAL sub-committee was set up under the National Steering Committee on the Protection of the Ozone Layer. The criteria and procedure for endorsement is specified in the Guidelines for Pre-qualifying and Selection Criteria for Acceptable Alternatives of ODS in Malaysia.

Applications for endorsement are handled by DOE (contact person, see Sect. 2) or, in the case of fire protection agents, by the Fire Service Department.

The DOE Guidelines for Project Preparation under the Multilateral Fund also contains criteria for the selection of ODS alternatives, applicable for projects where funding from the Multilateral Fund of the Montreal Protocol is requested.