

# INFORMATION PAPER

## **GUIDELINES FOR THE DEVELOPMENT OF REFRIGERANT MANAGEMENT PLANS (RMPs) FOR LOW-VOLUME ODS-CONSUMING COUNTRIES (LVCs)**

As amended by the 31<sup>st</sup> Meeting of the Executive Committee

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## **UPDATES**

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## **GUIDELINES FOR THE DEVELOPMENT OF RMPs**

### **1. INTRODUCTION**

The Multilateral Fund for the Implementation of the Montreal Protocol was established as an environmental fund to assist developing countries to eliminate the use of ozone depleting substances (ODS) controlled under the Montreal Protocol.

Developing countries, whose calculated consumption of ODS is less than 0.3 kg per capita per year are considered to be operating under Article 5, paragraph 1 of the Montreal Protocol and are eligible for assistance under the Multilateral Fund to enable their compliance with the control measures of the Protocol. The control measures include the freeze of consumption and production of Annex A CFCs at the average of 1995-97 levels by July 1999, reduction by 50% by January 2005 and 85% by 2007 and 100% phase out by 2020.

Financial assistance under the Multilateral Fund is provided in two main categories - investment projects and non-investment projects (including Country Programmes, Institutional Strengthening projects, technical assistance and training projects, Networking and information dissemination). Though the number and costs of the different types of projects vary considerably, each constitutes a critically important element for Article 5 countries in reaching and sustaining the 1999 CFC freeze targets and in obtaining their goal of complete ODS phase-out by 2010.

The first step toward implementation of the directives of the Montreal Protocol is the formulation of a Country Programme by a National Team.<sup>1</sup> The Country Programme incorporates a comprehensive account of the current consumption of ODS in the country, defines the institutional, political and industrial framework and estimates the economic and social consequences of meeting national commitments under the Montreal Protocol.

Once the Country Programme has been prepared and approved by the Executive Committee, financial assistance can be requested through the National Ozone Unit (NOU)<sup>2</sup> for investment and non-investment projects, in accordance with the Action Plan defined in the Country Programme. Institutional Strengthening projects, which are aimed to strengthen national capacities to coordinate and monitor phase out activities are normally approved concomitant with approval of the Country Programme.

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<sup>1</sup> Under UNEP's methodology for formulating Country programmes, the Government is encouraged to designate an official Focal Point and to formulate a National Team consisting of representatives from relevant ministries, associations, Non-Governmental Organizations, institutes, etc, who would be actively involved in the Country Programme exercise

<sup>2</sup> Institutional Strengthening projects enable the establishment and/or strengthening of National Ozone Units which are responsible for the coordination, management and monitoring of national phase-out activities and implementation of the Country Programmes.

As of September 2000, the Executive Committee of the Multilateral Fund has approved 82 Country Programmes and 77 Institutional Strengthening projects.

## **2. BACKGROUND**

### **2.1 Characteristics of LVCs and VLVCs**

As of September 2000, 120 countries were classified as Article 5 countries most of which were classified as low-volume ODS-consuming countries (LVCs).<sup>3</sup> LVCs are those countries whose consumption of ODS is less than 360 tonnes per annum. Very low volume ODS-consuming countries (VLVCs) are those whose consumption is less than 30 tonnes per annum. LVCs (hereinafter includes VLVCs) consume small amounts of ODS, but these ODS can be critical to their economy, especially in export and foreign exchange earning sectors. Few LVCs manufacture ODS and ODS-containing equipment and their needs for those items are met by larger Article 5 and non-Article 5 countries. Most LVCs consume about 70-100% of their total ODS consumption in the refrigeration sectors, mostly for servicing and maintenance of refrigeration equipment.

### **2.2 Barriers to Phase Out**

There are a number of barriers to the phase-out of ODS in LVCs, including inadequately skilled manpower, institutional constraints, large and diverse informal sector, lack of information and training on ozone issues, low economies of scale of phase-out projects and lack of sufficient involvement by all stakeholders.<sup>4</sup>

Since many LVCs do not have any investment projects, effective implementation of non-investment activities such as training, information dissemination and Recovery and Recycling is imperative to enable them to meet their phase-out obligations. It is particularly important that institutional arrangements (such as establishment of legislation, monitoring ODS consumption and increasing public awareness, etc.) and industrial sector activities (conversion, training, etc.) are implemented in a coordinated and synchronized way. However in many LVCs these different actions have often not been well coordinated, sometimes under the responsibility of different agencies.

### **2.3 The Need for a Refrigerant Management Plan**

Until now, the approval of Country Programmes and Institutional Strengthening projects has been followed by a "project-by-project" approach for the purpose of phase out of ozone depleting refrigerants. The need for such projects has been identified at different times and stages of Country Programme implementation.

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<sup>3</sup> At its 17<sup>th</sup> Meeting, the Executive Committee defined "Low ODS Consuming Countries" as countries with ODS consumption of less than 360 metric tonnes (Decision 17/11).

<sup>4</sup> Paper presented by UNEP at the 20<sup>th</sup> Executive Committee meeting, entitled "Proposed framework for Overall approaching for addressing the needs of Low Volume ODS consuming countries".

Typical projects submitted and approved for LVCs have included:

- Training of refrigeration and air-conditioning technicians
- Training of Customs officials
- Recovery and Recycling and Conversion projects

Such a "project-by-project" approach has often resulted in delays and inefficiencies in project approval and implementation processes. The absence of a specific policy framework has also resulting in sluggish responses and prevented the effective translation of the phase-out strategy as identified in the Country Programme.

One approach for overcoming the above mentioned inefficiencies is to institute a co-ordinated approach which will enable a comprehensive phase-out plan to be prepared and implemented at the national level. A Refrigerant Management Plan (RMP) comprises such a comprehensive phase-out strategy for the Refrigeration and Air-conditioning sectors in LVCs.

The RMP will ensure that LVCs meet their freeze commitments and further phase-out obligations. Additionally the RMP is designed to assist LVCs in meeting the decision taken at the 9<sup>th</sup> Meeting of the Parties that all countries need to adopt legislative and administrative measures to regulate export and import of products, equipment components and technologies.

These guidelines are at present designed to meet the phase-out requirements in the refrigeration and air-conditioning sector of LVCs.<sup>2</sup> However these guidelines can be customized for larger volume ODS consuming countries also. The guidelines are a broad-based reference document and should be adapted to meet the specific needs and requirements of each country. Other related documents could be used for reference such as:

- *Reducing CFC Use in Refrigeration: Strategic Options for Countries with Low CFC Consumption* (UNIDO/USEPA)
- *ODS Pollution Prevention Management Plan* (Environment Canada)
- *Regulations to Control ODS – A Guidebook* (UNEP/SEI)
- *Monitoring Imports of ODS – A Guidebook* (UNEP/SEI)
- *Implementation and Design of Codes of Good Servicing Practices in Refrigeration for Article 5 Countries* (UNEP)
- *Guidelines for the Establishment of Recovery and Recycling Systems and Related Legislation for LVCs* (UNEP)
- *Training module for National Training Courses on Good Practices Refrigeration* (UNEP)

Most of the above documents are available on-line at [www.uneptie.org/ozonaction.html](http://www.uneptie.org/ozonaction.html).

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<sup>2</sup> The original RMP guidelines were based on a paper jointly prepared by UNEP and the Government of France, and subsequent discussions with other relevant stakeholders.

### 3. GUIDELINES FOR THE PREPARATION OF RMPs<sup>3</sup>

#### **OVERALL OBJECTIVE**

The overall objective of a Refrigerant Management Plan (RMP) is to develop and plan a strategy that will manage the use and phase-out of virgin CFC refrigerants for servicing refrigeration and air-conditioning equipment.

#### **PRINCIPLES AND STEPS IN FORMULATING RMP**

The necessity to develop and implement a RMP originates from the need to resolve the many complex and interrelated issues defined above so as to eliminate the use of ODS refrigerants.

The RMP is a critical management tool for LVCs for a smooth transition to non-ODS refrigerants and includes strategy elements such as containment, Recovery and Recycling, retrofits and provision for the critical stocks for the 'service tail' through internal conservation techniques. The RMP will contribute to the country's phase-out of ODS by identifying all the activities required, describing all the Government measures that will be necessary to ensure the success of projects and planning how all these activities will be implemented over time.

The RMP will result in:

- accelerating progress of ODS phase-out by enhancing efficiency of project implementation
- reducing national dependence on ODS
- improving planning, management and coordination of national phase-out activities by National Ozone Units (NOUs), and industries
- synchronizing policy setting with phase-out activities

#### **Steps for formulation of RMP**

Undertake country-specific review and analysis of:

- refrigeration and air-conditioning sector and sub-sector
- consumption of CFC and HCFC refrigerants and their availability, sources of supply and distribution channels
- production of refrigeration and air-conditioning equipment
- servicing and maintenance workshops

Characterize the relative importance of sub-sectors on the basis of:

- level of consumption of ODS refrigerants
- economic importance
- trade orientation.

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<sup>3</sup> This section is from the Multilateral Fund Secretariat's *Policies, Procedures, Guidelines And Criteria* (as at July 2000), Annex VIII.16.

Assess the available and feasible options, including:

- technical options such as: good practices, recovery and recycling, conversion, retrofitting, replacements etc
- policy options such as: voluntary programmes/agreements, legislation and regulations, economic instruments.

Evaluate alternative options for:

- cost-effectiveness
- feasibility and timing
- maximum impact

Formulate a refrigerant management policy (which will include all or some of the following elements, in accordance with country -specific needs):

- training programme for refrigeration technicians
- recovery and Recycling system
- training programme for customs officials
- improved system for collection and monitoring and control of consumption of ODS refrigerant

While developing the RMP, it must be recognized that implementation of all the components should be timed to complement one another so as to ensure maximum impact on ODS phase-out in accordance with national phase-out time-schedules and obligations under the Montreal Protocol.

The elements and activities proposed for an RMP, whether they are to be funded by the Multilateral Fund or the country itself, should reflect the country's particular circumstances and address all relevant sectors including the informal sector. They should be sufficient to ensure fulfilment of the countries' control obligations at least up to and including the 85% reduction in 2007, and should include mechanisms for reporting progress.

## GUIDELINES FOR FORMULATION OF RMP

### Step 1: Setting up the coordinating team

The establishment of a Coordinating Team will ensure the involvement of all relevant

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