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FINAL RAPORT

UNIDO Contract No.2000/093

Project No.MP/ROM/99/079

MP/ROM/99/080

**PROVISION OF SERVICES
related to the
REFRIGERANT MANAGEMENT PLAN
in ROMANIA**

August 2002

2. SYNOPSIS or ABSTRACT

This **FINAL RAPORT** about the **PROVISION OF SERVICES** related to the **REFRIGERANT MANAGEMENT PLAN** in the **ROMANIA** presents the development obtained in the monitoring activity at “ **Recovery and Recycling Programme** ” and “ **Training programme for customs officers** “ from **ICPIAF** , including :

- review of the refrigeration service sector in the country ;
- local delivery to selected equipments ;
- training programme for customs officers .

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4 . INTRODUCTION

According to THE REFRIGERANT MANAGEMENT PLAN IN ROMANIA, made by TRANS - MOND ENVIRONMENT LTD. Finland and ICPIAF Cluj - Napoca , Romania , in April 1999 and aproved by Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol in July 1999 , UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION - UNIDO Vienna and RESEARCH AND PROCESSING INSTITUTE FOR FOOD AND REFRIGERATION INDUSTRIES - ICPIAF Cluj - Napoca have signed in June 2000 the Contract No.2000/093 for the project entitled “ PROVISION OF SERVICES related to the REFRIGERANT MANAGEMENT PLAN in the ROMANIA ”.

First component of this project aims to establish the countrywide sistem of refrigerant recovery and recycling . Romania has currently approximately 1,200 refrigeration and air-conditioning service workshops . 300 service technicians , from 300 refrigeration and air-conditioning service workshops who are currently working in maintenance business , were trained in the year 2000 to ICPIAF Cluj - Napoca at TRAINING CENTER FOR REFRIGERATION SERVICE TECHNICIANS for good practices in

refrigeration .Under this project , seven Recovery Centers were established in Romania in the year 2000 . These centers are authorized to collect used refrigerants , treat and re - sell in the market .

Second component of this project aims to train customs officers (inspectors,cotrollers and customs policemen) to enable them to identify controlled substances under Montreal Protocol and imported refrigerators , freezers and other refrigeration and air - conditioning equipments using CFC's .

Conformable to Contract No.2000/093 , Paragraph 2.07 “ Reports “ , the **Final Raport** including

- review of the refrigeration service sector in the country ;
- local delivery to selected equipments ;
- training programme for customs officers ;

must be presented at UNIDO befor 30 July 2002 .

This **Final Raport** presented in the next pages , will cover the work performed in the Project Area and the Home Office carried out by Contractor's (**iCPIAF**) Personnel .

5. BODY

The third component of the REFRIGERANT MANAGEMENT PLAN is to establish a countrywide system for refrigerant recovery and recycling . Necessary recovery equipment will be provided to major service workshops in the country and recycling equipment will be provided to seven recycling centers . After distribution of those sets of equipment , the recovery and recycling system will be monitored to ensure effective activity would be executed to phase out CFC's in the service sector .

Conformable to Contract No.2000/093 , Paragraph 2.07 “ Reports “ , the **Final Raport** including

- review of the refrigeration service sector in the country ;
- local delivery to selected equipments ;
- training programme for customs officers ;

presentes in the next pages the work performed in the Project Area and the Home Office carried out by Contractor's (iCPIAF) Personnel , after the signing of the Contract (end of June 2000), between July 2000 and July 2002 .

Must to be wrote down that , in the completetion of this raport , is necessary to be analysed and the following reports :

- PROGRESS MONITORING REPORT from September 2000 ;
- PROGRESS REPORT 1 from December 2000 ;
- BIANUAL MONITORING REPORT 1 from December 2000 ;

- PROGRESS REPORT 2 from April 2001 ;
- BIANUAL MONITORING REPORT 2 from June 2001 ;
- BIANUAL MONITORING REPORT 3 from December 2001 ;
- BIANUAL MONITORING REPORT 4 from August 2002 ;
- TRAINING REPORTS from August 2002 .

5.1 Review of the refrigeration service sector in the country

Romania has approximately 1,200 licensed refrigeration and air-conditioning service workshops in 42 districts of all the country .

The current maintenance standards of domestic and commercial refrigeration equipment are generally poor .

There are no systematic recovery and recycling activities . However , the inventories made during the preparation of the Refrigerant Management Plan , revealed that within the business there is a remarkable interest in the recovery and recycling .

There is no organised training of service technicians . The skills are learned on - the - job .

According to the Contract No.2000/008 , signed in January 2000 between UNIDO Vienna and ICPIAF Cluj - Napoca , entitled "TRAINING FOR GOOD PRACTICE IN REFRIGERATION " , the training have started in 14 February 2000 and till the end of November 2000 have been trained 300 refrigeration technicians . This project offered the technique and financial possibilities to train refrigeration technicians in the proper methods of performing repairs , maintenance

and installation of refrigeration and air - conditioning equipment , to avoid leaks and unnecessary emissions of CFC's.

All these 300 service companies , who have done the training , in concordance with the Refrigerant Management Plan , have received the basic service and recovery equipment , as :

- vacuum pump ;
- recovery machine ;
- recovery cylinders ;
- gauge manifold .

After the finish of this programme , to “ The TRAINING CENTER for REFRIGERATION EQUIPMENT SERVICE TECHNICIANS “ established to ICPIAF Cluj - Napoca , the training has continued paid by the participants . In this interval (January 2001 - July 2002) were trained 148 persons.

5.2 Local delivery to selected equipments

Till the end of the year 2000 , ICPIAF has delivered 300 recovery machines (made by ICPIAF) . In February 2001 ITE Belgium has delivered to ICPIAF Cluj - Napoca the rest of the equipments :

- 307 pieces vacuum pump ;
- 300 pieces gauge manifold ;
- 300 pieces refrigerant recovery cylinder 12 kg ;
- 7 pieces refrigerant recycling machine ;
- 7 pieces refrigerant recovery cylinder 50 kg ;

- 7 pieces refrigerant recovery cylinder 400 kg ;
- 7 pieces hand refrigerant leak detector .

By the care and the expenses of iCPIAF , in the period March - April 2001 , all of these equipments were delivered to the seven Recycling Centers at TIMIȘOARA , RÂMNICU - VÂLCEA , CLUJ - NAPOCA , BRAȘOV , BUCUREȘTI , CONSTANȚA and IAȘI . To these Recycling Centers were delivered the equipments at the Service Companies wich belong , with the participation of the Ministry of Waters and Environmental Protection , County Environmental Protection Agencies and iCPIAF .

Each Service Company and Recycling Center signed an ANGAGEMENT and these typs of Angagement were reproduced in PROGRES REPORT 2 - Annex A-E - delivered to UNIDO in 30 April 2001 .

If till the end of December 2001 , the seven Recycling Centers had received from Services Company , about their work with the equipments, the reports mentionated in BIANUAL MONITORING REPORT 3 , in period January - July 2002 , iCPIAF and Recycling Centers had strengthened the activity of monitorization on refrigerants .

The results and effects of this work are showed in Annex A of the BIANUAL MONITORING REPORT 4 .

Supplementary , in accordance with UNIDO MOD no:29-1-46332 to the MP/ROM/99/080/45-01-1 , iCPIAF had manufactured and delivered 50 recovery machines to the news service companies , that have done this training paid by him selfs .

A great help in the recycling activity of the Recycling Centers was the equiption with ODS identifiers . Each Recycling Center has received an ODS identifier .

5.3 Training programme for customs officers

The **Customs Training Workshop** was developed with succes at FÂNTÂNELE - BELIȘ Station (near Cluj - Napoca at approximate 80 km) in 03 - 04 July 2002 .

The **Customs Training Workshop** was organized by ICPIAF Cluj - Napoca , with the coordination of MINISTRY OF WATERS AND ENVIRONMENTAL PROTECTION and GENERAL DIVISION OF CUSTOMS .

The developed of the **Customs Training Workshop** is described in TRAINING REPORTS .

6. TERMINAL SECTION

Accoording to the PROVISION OF SERVICES related to the REFRIGERANT MANAGEMENT PLAN , we consider that the aotivity done between July 2001 and July 2002 is in agreement with the Reoovry and Reoycling Programme and Training of Customs Officers Programme , including the theoretical and hands-on sessions and covers the following items :

- the recovery of refrigerant at maintenance ;
- the recovery of refrigerant before retrofitting or dismantling/scraping refrigeration and air conditioning equipment ;
- creation of the necessary infrastructure within the country for the reuse , collection , recycling and distribution of all CFC refrigerants recycled ;
- encouragement to service workshops and companies to maintain their own systems and/or equipment to recover CFC during service and maintenance ;
- development of reliable and valid statistics of national ODS consumption;
- identification of ODS , ODS using and ODS containing equipment and discouraging parallel activities ;
- accurate implementation of restrictive import measures and resulting in decreasing importation volumes ;
- enhancement of the local non - ODS equipment production ;
- feedback to the regulation authority on modification of rules and regulation

Gheorghe LĂZANU
GENERAL DIRECTOR



Sabin BOBOȘ
Head of RMP to ICPIAF



Cluj - Napoca , 13 August 2002