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执行蒙特利尔议定书 多边基金执行委员会 第四十四次会议 2004年11月29日至12月3日,布拉格

项目提案:马来西亚

本文件由基金秘书处关于下列项目提案的评论和建议组成:

逐步淘汰

■ 国家氟氯化碳淘汰计划:2004 年度工作方案

世界银行

项目说明

背景

1. 执行委员会在第三十五次会议上核准了马来西亚氟氯化碳国家淘汰计划,并原则上同意在 2002-2010 年间总共拨款 11,517,005 美元,以消除剩余的消费量,即 2,092 ODP 吨附件 A 第一类氟氯化碳、33 ODP 吨 1,1,1 TCA 和 4 ODP 吨四氯化碳。自该计划被核准以来,2001 年、2002 年和 2003 年的三期供资已经拨付给世界银行,拨款总额为 6,782,105 美元。根据协定条款,世界银行现在提交 2004 年度工作方案并申请发放 2004 年期供资 1,688,300 美元外加相关支助费用 143,947 美元。呈件包括 2003 年工作方案的成就报告、拟议的 2004 年工作方案以及执业审计员关于 2003 年氟氯化碳进口情况的报告。国家氟氯化碳淘汰计划 2004 年度工作方案和马来西亚执业审计员的报告附在后面。

2003 年度工作方案的成就

2. 协定中允许的 2003 年各类氟氯化碳、1,1,1 TCA 和四氯化碳的最高消费量是 1,618.51 ODP 吨,细分为 1,566,ODP 吨氟氯化碳、48 ODP 吨 1,1,1 TCA 和 4.51 ODP 吨四氯化碳。报告的实际消费量为 1,465.01 ODP 吨氟氯化碳、6.93 ODP 吨 1,1,1 TCA 和零 ODP 吨四氯化碳,所有三种物质总共为 1,471.94 ODP 吨。据报告,消费量减少是通过执行在国家淘汰计划之前核准的项目,查明各个行业中小型企业的消耗臭氧层物质剩余消费量并为其提供资金,以及制冷维修行业中的技术援助活动等多项措施实现的。关于 2003 年工作方案的报告介绍了 2003 年在技术援助项下开展的活动,包括计量吸入器过渡战略的拟订、2005 年将引入的强制性汽车空调检验要求方面的进展、教员培训和汽车空调维修技术员证书方案、海关培训和项目管理单位的运作。该说明由每项活动的进度说明表作补充,后者包括目标、目标群体、影响和执行状况。2003 年的财务报告提供了 11 项活动的计划支出(2,064,000 美元)与实际支出(614,127 美元)的数据、拨款率为 30%。

2004 年度工作方案

3. 2004 年工作方案提出最高消费限额为 1,136 ODP 吨氟氯化碳、48 ODP 吨 1,1,1 TCA 和 4.51 ODP 吨四氯化碳,全部三种消耗臭氧层物质总计 1,188.51 ODP 吨,这符合协定中规定的指标。尽管有这些指标,但年度方案还是打算将这几种消耗臭氧层物质的进口总量限制在 1,124 ODP 吨。该方案还载有马来西亚政府要开展的活动说明,如 2004 年宣布自 2005 年起对汽车空调进行强制性检验、制造业剩余的工业转产和为这一年计划的技术援助活动。还有一份各项活动的目标、目标群体、影响和状况的图表说明。建议的 2004 年度工作方案

预算提供了 14 项活动的计划支出明细表, 预计支出总额为 3,098,251 美元。

对**消耗臭氧**层物质进口情况的审计

4. 2003 年各类氟氯化碳、1,1,1 TCA 和四氯化碳的进口情况是由执业审计员代表马来西亚审计长审计的。该审计员审查了根据国际贸易和工业部颁布的进口申请许可证发放进口配额的程序和皇家海关总署颁布的进口管制程序。该报告介绍了进行审计的程序,这包括核查发放 2003 年进口配额的过程、核查发放给进口商的配额、核查海关记录和进口商的单证、核查统计局的记录。最后,该报告得出结论,2003 年的进口总量为 1,465 ODP 吨氟氯化碳、6.93 ODP 吨 1,1,1 TCA 和零 ODP 吨四氯化碳。审计报告得出结论,马来西亚政府采用的消耗臭氧层物质进口管制程序令人满意,但他象在 2003 年一样再次建议,环境局作为国家淘汰计划的协调部门,不应该只依靠统计部的二级数据,将来应该通过核对统计局与国际贸易和工业部的进口数据来进行核查。

秘书处的评论和建议

评论

- 5. 关于 2003 年和 2004 年工作方案的报告是按照第三十八次会议上核准的基于绩效的行业的准备、执行和管理准则和国家消耗臭氧层物质淘汰计划(UNEP/OzL.Pro/ExCom/38/57)编写的。关于 2003 年工作方案的报告包括作为国家淘汰计划一部分的各种活动的进展情况及其对实现该年淘汰计划指标的影响。2004 年度工作方案确定了与该协定中的指标一致的明确指标, 马来西亚政府和工业界会开展各种具体活动, 支持实现这些指标。
- 6. 协定中规定的 2004 年的一项绩效指标包括宣布 2005 禁止制造业使用氟氯化碳, 但是, 该年度工作方案中没有明确说明政府政策的状况, 例如 2004 年结束使用的前景。与绩效指标有关的另一个问题是, 目前使其余所有消费氟氯化碳的中小型企业转产的工作是否将在 2004 年底之前完成, 以便这些企业在 2005 年不会因这项禁令而受到不利影响。
- 7. 2003 年氟氯化碳和 1,1,1 TCA 进口情况的核查报告显示, 马来西亚政府对于消耗臭氧层物质进口执行了有效的许可证管制制度。核查方法十分有效, 而且为了验证使用了各种来源提供的数据。但是, 审计员重申了其上一年报告中的建议, 即环境局作为中央协调单位不应该只依靠统计局的数据, 将来应通过核对统计局与国际贸易和工业部的进口数据来进行核查。目前还不清楚为什么马来西亚政府没有执行审计员的建议。

建议

UNEP/OzL.Pro/ExCom/44/44

9. 秘书处建议执行委员会:

- (a) 核准马来西亚氟氯化碳国家淘汰计划 2004 年工作方案的申请供资数额 1,688,300 美元及世界银行的相关支助费用 143,947 美元。
- (b) 赞赏地注意到执业审计员关于马来西亚 2003 年氟氯化碳、1,1,1,TCA 和四氯化碳 进口情况的报告,并请世界银行根据审计员关于消耗臭氧层物质进口管制制度的 建议酌情采取后续行动。
- (c) 请世界银行在 2005 年工作方案中提供关于禁止制造业使用氟氯化碳的禁令的执行情况和中小型企业的工业转产完成情况。

MALAYSIA National CFC Phase-out Plan (NCFCP) 2002-2010

2004 Annual Program

Prepared by:

Ozone Protection Section

Department of Environment (DOE)
Ministry of Natural Resources
And Environment
MALAYSIA

September 2004

1.0 DATA

| Country | MALAYSIA |
|---|--|
| Year of plan | 2004 |
| No. of years completed | 2 |
| No. of years remaining under the plan | 6 |
| Target ODS Consumption of the preceding year (2003) | 1,566 ODP MT of Annex A, Group I Chemicals (CFCs) |
| | 48 ODP MT of TCA |
| | 4.51 ODP MT of CTC |
| <u>Total</u> | 1,618.51 ODP MT |
| Target ODS Consumption of the year of plan (2004) | 1,136 ODP MT of Annex A, Group I Chemicals (CFCs) |
| | 48 ODP MT of TCA |
| | 4.51 ODP MT of CTC |
| <u>Total ODS</u> | 1,188.51 ODP MT |
| Level of funding requested | Investments: USD 1,488,300 PMU costs: USD 200,000 Total: USD 1,688,300 |
| IA Support costs | Investment activities (9%): USD 133,947 PMU (5%): USD 10,000 USD 143,947 |
| Lead implementing agency | The World Bank |
| Co-operating agencies | Nil |

Introduction

- 1. In accordance with the Executive Committee's approval of the "Malaysia National CFC Phaseout Plan" (Decision 35/53), Malaysia is hereby requesting the release of the fourth tranche of US\$1,688,300 for the implementation of its 2004 Annual Program. After implementing this program, Malaysia's CFC consumption will be reduced to a maximum of 1,136 ODP tonnes by the end of 2004. Similarly, the country's consumption of 1,1,1 TCA and CTC will be reduced to a maximum of 48 ODP tonnes and 4.51 ODP tonnes, respectively. Details of the 2004 annual program are provided in Part II.
- 2. The Executive Committee (ExCom) of the Multilateral Fund for the Implementation of the Montreal Protocol has approved a total grant of US \$11,517,005 in funding for the phased reduction and complete phase-out of consumption of Annex A, Group I chemicals, 1,1,1 TCA and CTC in Malaysia. The approved funding and agreed annual targets are summarized in Table 1 below.
- 3. Following the approval of the NCFCP at the 35th Meeting of the ExCom in December 2001, Malaysia has taken important steps towards the implementation of the Plan. Details of 2003 activities and developments to date are found in Part I.

Table 1: Approved MLF Funding and ODP Reduction Schedule

| Year | Annual Grant Funding US\$ (million) | Maximum Consumption allowed under NCPP (ODP tonnes) | | | |
|------|---|---|-----------|------|-----------|
| | | CFC | 1,1,1 TCA | СТС | Total ODS |
| 2001 | 1,799,940 | | | | |
| 2002 | 2,969,065 | 1,855 | 51 | 4.51 | 1910.51 |
| 2003 | 2,013,100 | 1,566 | 48 | 4.51 | 1618.51 |
| 2004 | 1,688,300 | 1,136 | 48 | 4.51 | 1188.51 |
| 2005 | 1,208,300 | 699 | 18 | 0.68 | 717.68 |
| 2006 | 1,013,300 | 579 | 18 | 0.68 | 597.68 |
| 2007 | 275,000 | 490 | 18 | 0.68 | 508.68 |
| 2008 | 275,000 | 401 | 18 | 0.68 | 419.68 |
| 2009 | 275,000 | 332 | 18 | 0.68 | 350.68 |
| 2010 | 0 | 0 | 0 | 0 | 0 |

PART I - 2003 ANNUAL PROGRAM ACCOMPLISHMENTS

1. TARGETS MET

- 1. The maximum allowable consumption target for 2003 was set at 1,618.51 ODP tonnes, amounting to a reduction of 292 ODP tonnes from 2002 levels.
- 2. The 2002 verification report, submitted at the 40th Meeting of the Executive Committee, showed that a total of 1658.18 ODP tonnes of CFC, 12.8 ODP tonnes of 1,1,1 TCA and no CTC were imported within the Calendar year (January 1 to December 31, 2002). This was well below the maximum allowable consumption for 2002 of 1,855 ODP tonnes of CFC and 51 ODP tonnes of TCA.
- 3. The 2003 consumption verification report indicates that consumption targets under the Agreement have also been met. A summary is provided in Table 2, below. Consumption in 2004 is also expected to be lower than the annual target, and Malaysia is therefore well on its way to meet the 2005 reduction commitments of the Montreal Protocol.

Table 2: Consumption in 2003

| All data in ODP Tonnes | CFCs | 1,1,1 TCA | СТС | Total |
|---------------------------------------|----------|-----------|------|----------|
| Maximum allowable consumption in 2003 | 1,566 | 48 | 4.51 | 1,618.51 |
| Actual imports in 2003 ¹ | 1,465.01 | 6.93 | 0 | 1,471.94 |

¹ As presented in the 2003 verification report, which is being submitted along with this Annual Work Program. The audit conducted is based on records provided by the Customs Department. The figure reported includes ODS shipments that took place in the final months of 2002 but that were recorded by the Customs in 2003, and it is estimated that there is a delay of approximately 3 months in data recording after ODS shipments arrive to port. The actual consumption in 2003, as reported by DOE, was 1,174.4 MT ODP of CFCs and 11.4 MT ODP of TCA, for a total ODS consumption of 1,185.84 MT ODP. This actual consumption will be used in Part II of this report (i.e. Tables 6 and 7). Both numbers are well below the annual ceiling. This difference will be addressed by the Bank in a meeting with the auditor during the next supervision mission.

2. SUMMARY OT TECHNICAL ASSISTANCE ACTIVITIES

4. Under the directive of the National Steering Committee on the Ozone Protection (NSC), DOE initiated formal discussions with all concerned agencies in order to establish a number of working groups that would formulate sector policies and prepare action plans for each activity. A brief description of the activities undertaken is provided below.

2.1 MDI Program

5. A working group (WG), chaired by the National Pharmaceutical Control Bureau (NPCB), Ministry of Health was established in late 2002. In May 2003, the WG agreed to appoint NPCB to conduct of a study and to prepare a National Transition Strategy to Phase Out CFC in MDI. DOE appointed NPCB as a consultant for the period of August 2003 until March 2004. NPCB is required to prepare the National Transition Strategy to Phase out CFC in MDI sector and increase public awareness on non-CFC products in MDI. The cost agreed to implement the task is USD 50,000. The draft report describing the current situation of CFC and non-CFC MDI markets in Malaysia and the existing policy framework in promoting the transition of non-CFC MDI products or other alternatives was circulated to WG in November 2003, for additional inputs and comments.

2.2 MAC Inspection Program (PUSPAKOM)

6. DOE appointed a consultant in November 2003. Based on the TOR, the consultant is required to prepare a Standard Inspection Training Manual (SITM), which to be used by the local inspection authority such as PUSPAKOM, Road Transport Dept. (RTD) and DOE. The SITM will comprise all details of the system and its application. In addition, the consultant will produce the pamphlets, stickers and will develop an awareness program, which will be distributed to all commercial vehicles after each inspection in PUSPAKOM. The first draft of SITM was submitted to DOE and a discussion was held in December 2003.

2.3 <u>Custom-ODS Training Program (COTP)</u>

7. In May 2003, DOE initiated a discussion with the Customs Department and the Malaysia Custom Academy (AKMAL) regarding the Custom ODS Training Program (COTP) and the implementation program in related to NCFCP. Based on TOR, DOE appointed a consultant in August 2003 to prepare the Customs-ODS Training Manual (COTM). The cost is USD 10,526.32. A small working group discussed the final draft manual in December 2003.

2.4 ODS Awareness Program

8. A National ODS Seminar was organized in July 2003 with participation of more than 400 representatives from various ODS sectors and government agencies. The purpose of the seminar was to disseminate information on NCFCP strategies and the Government policy to relevant stakeholders in the government sector and the general public. In addition, DOE jointly organized the Chiller/Commercial Refrigerant Training Management, CRTM (3 series), International RAHV Refrigerant Conference, MAC Servicing Sector Roundtable Discussion, Refrigerant and Halon Management Regulations Training Course and ODS Exhibition as well as Malaysia JICOP seminar HCFC alternative technology. DOE also participated in meetings or workshops such as 23rd OEWG (Montreal), 15th COP Meeting (Nairobi), MEA Workshop (Colombo), MB Alternative Workshop (Ho Chi Minh) and SEAP ODS Networks and Customs ODS Meetings (Phuket).

3. INDUSTRY ACTION (SUB PROJECT)

3.1 MAC Servicing Sector

Certification of ATC – Train the Trainer Program (TTP)

- 9. In March 2003, a Group Coordinator (GC) was appointed as a consultant by DOE. The scope of work and objective of the program was clarified in the agreement and GC is responsible for developing training modules, technical expertise to train the trainers program, and coordinating the procurement of equipment. The procedures for equipment procurement were established in November 2003.
- 10. Thirty (30) Authorized Training Centers (ATC) were also identified. In December 2003, Letters of Commitment (LOC) were signed by ATC as commitment to participate in the Train the Trainer Program (TTP). ATCs will be represented by 2 participants. The training provides details of the program, hands-on technical training of the R&R Machines, MAC Tools, Refrigerant Identifiers and a theory and practical test.
- 11. DOE will issue an accreditation letter to ATC as a qualified MAC Servicing Workshop under NCFCP. After the accreditation, each ATC will be required to conduct a training program to train MAC service workshop within their region (Certification of Technician) before 2006. Qualified suppliers for R & R machine and MAC servicing tools have been identified and invited to supply these equipments to ATC. The invitation process was announced in the newspaper in August 2003.

12. In addition to promoting the MAC Service Sector, DOE organized National ODS Seminar and meeting (also attended by 350 workshop owners) in July and October 2003. Concurrently, the Environmental Council Committee has agreed to amend the Environmental Regulation (Refrigerant Management) 1999, which will specifically include the MAC services.

Procurement of Equipment

13. Each ATC will receive 2 sets of R&R and MAC Service Tools for total value of USD 8,280 and these will be carried out via voucher scheme. GC will assist DOE in coordinating the distribution of the MAC service tools, R&R units and vouchers.

3.2 ODS Solvent Study

14. Based on TOR, DOE appointed a consultant from the PMU budget to carry out a final survey on the remaining users of CFC 113, 111 TCA and CTC in SME. An agreement was signed in July 2003. The final report has been received and endorsed by DOE. In the report 2 eligible SME were identified.

3.3 Foam Phase-Out Project

15. DOE proceeded with preparation of foam subproject by preparing TOR. A consultant was selected in January 2003 to assist the small medium enterprises in preparing project proposals. 14 SMEs (Group Project) were qualified for financial assistance through the voucher scheme (maximum @USD 7,500) that was approved by DOE/WB. In addition, only 4 qualified suppliers on CFC-free technology/HCFC on foam have been identified. Discussions with 14 SMEs and suppliers were carried out in September 2003. 18 industries (Individual Projects) were also identified and project proposals were prepared by the consultant. DOE reviewed and sent the report to CETEC for appraisal in November 2003.

A summary of Technical Assistance activities and Industry Actions that were carried out during 2003 is summarized in tables 3 and 4:

Table 3: Technical Assistance activities carried out in CY 2003

| | CY2003 | OBJECTIVES | To increase awareness on CFC MDI transition plan | |
|----|--|---|--|--|
| | CFC in MDI Sector | TARGET GROUP | Pharmaceutical Association, Doctors, MDI Importers, And Patients | |
| | | IMPACT | | |
| | | 7 10 1 | To promote the use of non-CFC MDI | |
| NO | DESCRIPTION | STATUS/REMARKS | | |
| 1 | Selection of consultant Development and strategies taken | TOR/SOW was approved by the World Bank (WB) and the working group (WG) in May 2003. On 19/5/2003, WG agreed to appoint NPCB to conduct of a study and prepare National Transition Strategy to Phase Out CFC in MDI. NPCB appointed by DOE to do the survey/research for the period of August 2003 to March 2004 Draft report describing the current situation of the CFC and Non-CFC MDI markets in Malaysia and the existing policy was circulated to WG in November 2003 | | |

| | CY2003 | OBJECTIVES | Prevention of R134a MAC system to be retrofitted with R12 (CFC-12) (reverse retrofitting) |
|----|---|--|--|
| | MAC Inspection | TARGET GROUP | PUSPAKOM, RTD and DOE State Offices Commercial and Private car owners |
| NO | • | IMPACT | Reduction of CFC-12 consumption in MAC service sector and increase awareness of vehicle's owners |
| NO | DESCRIPTION | Sī | ΓATUS/REMARKS |
| 1 | Development of a Standard Inspection Training Manual (SITM) | TOR/SOW agreed by WB and DOE in July 2003. Global Mist Sdn Bhd was appointed as consultant in November 2003 The consultant was required to prepare the Standard Inspection Training Manual (SITM) which to be used by Puspakom, Road Transport Dept (RTD) and DOE. Consultant was also required to produce stickers, pamphlet and awareness program for all commercial vehicles after each inspection in Puspakom 1st draft of SITM received and discussion was held in | |
| 2 | Amendment to Environmental Regulation (Refrigerant Management) 1999 and other regulations under Road Transport Act /RTD | December 2003 Cabinet paper to propose of Refrigerant Management amendment has been sent to MOSTE in Nov. 2003 for cabinet minister's approval. | |

| | CY2003 | OBJECTIVES | Build technical capacity of custom officials to inspect the import of ODS | |
|----|--|--|---|--|
| | Custom ODS Training | TARGET GROUP | Custom officials and DOE State Officers | |
| | Program | IMPACT | Strengthen effectiveness of import control system of CFC | |
| NO | DESCRIPTION | STATUS/REMARKS | | |
| 1 | Development of a Custom-ODS Training Manual (COTM) and Course | In May 2003, DOE initiated discussion with the Customs Department and AKMAL to develop Custom ODS Training Program. Top Tier Sdn Bhd was appointed as consultant in Aug 2003. Drafted COTM discussed in December 2003 during working group meeting with Customs Department, AKMAL and DOE. | | |

Table 4: Industry Actions (Sub Project) carried in CY 2003

| | CY2003 | OBJECTIVES | Increase technical capacity of the MAC service workshops |
|----|--|--|---|
| | Certification of ATC | TARGET GROUP | Authorized Training Centers (ATC) and MAC service |
| | (Train the Trainer Prog.) | | Workshops |
| | Certification of Technician MAC | IMPACT | Reduction of CFC-12 consumption in MAC service |
| | Service Workshop | 7.01 | and proper handling and good workshop practice |
| NO | DESCRIPTION | STATUS/REMARKS | |
| 1 | Certification of ATC Train-the-Trainer Program (TTP) | March 2003. GC was selected for activities under MAC equipment was esta 30 qualified ATC repand DOE via the new A meeting with 350 workshops was orga 30 ATC signed LOC 4 days training for A 2004 Additional fund requal 110/workshop as incessed. | TC was planned to be conducted early ested USD 279,30.00 plus USD |

| | CY2003 | OBJECTIVES | To reduce amount of ODS used in manufacturing Industry process |
|----|---|---|--|
| | Phasing out CFC via | TARGET GROUP | SME (Manufacturing Industries) |
| | Conversion to non-CFC | IMPACT | Phase out the use of CFC113, TCA 111 and CTC in SMEs |
| NO | DESCRIPTION | STATUS/REMARKS | |
| 1 | Identification of remaining users of CFC 113, TCA 111 and CTC | Consultant appointed in July 2003 to conduct survey and find remaining CFC users in SME (Manufacturing). 2 eligible SMEs identified and report was endorsed by DOE | |

| | CY2003 | OBJECTIVES | To phase-out the use of CFC 11 in the manufacturing of polyurethane foam and conversion to non CFC process |
|----|--|---|--|
| | Conversion to non ODP In the FOAM Manufacturing Inds. | TARGET GROUP | SMEs manufacturing foam, cold rooms, bonded trucks, boats, cushions, refrigeration systems, etc. |
| | Manadating mas. | IMPACT | Reduction of CFC 11 in manufacturing process |
| NO | DESCRIPTION | STATUS/REMARKS | |
| 1 | Preparation of proposal for SME and identifying the manufacturer of foam | Consultant was appointed in January 2003 14 SMEs (Group Project) were identified for financial assistance 23 (18 + 5) SMEs (Individual Project) were identified and project proposal was prepared by consultant Discussion with 14 SMEs and suppliers took place in September 2003 4 out of 6 qualified suppliers were identified in 2003 | |

| | CY2003 | OBJECTIVES | To provide Government with necessary support to carry out all activities proposed under this plan |
|----|--------------------------------|---|--|
| | | TARGET GROUP | DOE |
| | Project Management Unit | IMPACT | Strengthen capacity of Government to carry out the NCFCP to ensure timely and effective preparation and execution of the project activities |
| NO | | Sī | TATUS/REMARKS |
| 1 | Set up of PMU | DOE advertised in local news paper and websites to recruit 4 staff members: Technical Officers (2), Public Outreach Officer, and Project Accountant. Interviews were conducted in October 2003. | |
| 2 | Public Awareness Activities | Expected start of work in January 2004 DOE organized a National ODS Seminar in July 2003. DOE also jointly organized seminars and workshops on RAVH Refrigerant Conference with MASHRAE (Dec. 2003), 3 Series of Hand-on Training on Chillers Refrigerant (CRTM) with MASHRAE, an HCFC Technologies Seminar with JICOP (October 2003), a Roundtable Meeting with 350 car servicing workshops (Oct. 2003), Training on Refrigerant and Halon Management Regulations for Petronas staff (June 2003), celebration on International Ozone Day by disseminating information on NCFCP and on Government policy to relevant stakeholders. | |
| 3 | Regulatory Support | among relevant Refrigerant Manage by the NSC and the | egulatory requirements were discussed agencies. An amendment of the ment Regulation (1999) was approved Environmental Council in August 2003. been sent to MOSTE for approval. |

4. GOVERNMENT ACTION

4.1 **Project Management Unit (PMU)**

16. In early 2003, DOE initiated a process to establish a Project Management Unit (PMU) comprising of the following 4 staff: Technical Officers (2), Public Outreach Officer/Strategic Communication Officer (1), and Accountant Officer (1). TOR for these service experts were approved and the experts have been selected in line with the Bank procurement guidelines for consultants. The advertisement was published in local news paper and website in August 2003, interviews were conducted in October 2003, and the PMU started functioning in January 2004.

4.2 Regulatory Actions

- 17. Based on the National CFC Phase-out Plan (NCFCP) 2002-2010, the Government undertook a number of regulatory actions as part of the NCFCP. These actions included:
 - (a) Control of CFC consumption, 111-TCA, and CTC;
 - (b) Monitoring of compliance to those enterprises that received funding from MLF in all the sectors (aerosol, foam, refrigeration, MAC, others),
 - (c) Control the use of CFC in foam and MAC manufacturing, and
 - (d) Prohibit the use of 111-TCA and CTC in solvent. Procedures for monitoring and enforcement will be established. Training workshops will be provided to Government officials to carry out the tasks.

Government activities carried out in CY2003 are summarized below.

| No | POLICY / ACTIVITY PLANNED | SCHEDULE OF IMPLEMENTATION | STATUS |
|----|--|----------------------------|--|
| 1. | Control of import quota through AP system ¹ | January -December 2003 | Import control policy in place and in operation since 2000 |
| 2. | Announcement of Import Quotas for CFCs from 2002-2010 ² | December 2001 | Announcement of import quotas for 2003 was done in December 2002 |
| 3. | Criteria and procedures for financial support for investment projects ² | January-December 2003 | Completed for foam subsector. Revised appraisal report for 14 SME under foam phase-out project approved by WB on 12 January 2004. Revised appraisal for 7 of 18 individual foam projects |

¹ 2003 Performance Target

² 2004 Performance Target

| | | | submitted to WB on 19 th Feb 2004. 5 new projects proposal being revised by CETEC. |
|-----|---|---|--|
| 4. | National ODS Seminar | 31 July 2003 | Completed. |
| | | | Attended by 400 participants. |
| 5. | Training on Chiller and Refrigerant Management (CRM), | 21-22 March 2003 26-27 August 2003 16-17 December 2003 | Completed. 60 chiller operators and high rise building owners received training certificate. |
| 6. | Training Course on Refrigerant and Halon Management Regulations | 13 June 2003 | Completed. |
| 7. | HCFC Technologies Seminar | 23 October 2003 | Completed. |
| | | | Jointly organized with JICOP. Attended by 150 participants. |
| 8. | Roundtable Discussion on Car Air-Cond. Servicing Workshops. | 22 October 2003 | Completed. |
| | conditioning manager | | Attended by 350 MAC service workshops. |
| 9. | Celebration the International Ozone Day | 16 September 2003 | Completed |
| 10. | RAVH International/ Refrigeration and Air Conditioning Conference | 24-25 September 2003 | Completed |
| 11. | Exhibition on RAVH Conference | 23-26 September 2003 | Completed |
| 12. | Advertisement for invitation of qualified R & R MAC supplier and 30 ATC. | 16 October 2003 | Completed |
| 13. | Publication and printing for NCFCP, sunshade, 2004 Calendar and ODS Folder for awareness program. | September- December 2003 | Completed |
| 14. | Updated WWW ODS Information | August-November 2003 | Completed |

5. BUDGET AND FINANCIAL PERFORMANCE IN 2003

Table 5: Financial performance 2003

| No. | Activity | Planned Expenditure (USD) | Actual Expenditure (USD) |
|-----|---|---------------------------------|--------------------------------|
| 1. | Conversion of Seasonair sub-project | 0 | 550,890 |
| 2. | Conversion in Foam/commercial refrigeration Sectors | 1,000,000 | 14,000 |
| 3. | MAC servicingTrain-the-Trainer | 319,000 | 0 |
| 4. | MAC servicing Financial subsidy | 100,000 | 0 |
| 5. | MAC – Mandatory training | 120,000 | 0 |
| 6. | Conversion in solvent sector | 100,000 | 0 |
| 7. | RefrigerationTrain-the-Trainer | 0 | 0 |
| 8. | RefrigerationFinancial subsidy | 0 | 0 |
| 9. | TA for MDI | 25,000 | 0 |
| 10. | Custom training | 100,000 | 4,211 |
| 11. | PMU | 300,000 | 45,026 |
| | TOTAL | 2,064,000 | 614,127 |

PART II - 2004 ANNUAL PLAN

1. TARGETS

Table 6: National Targets

| Target (ODP Tons) | | | | | | |
|-------------------|---|-------|-------|-----|--|--|
| Indic | Indicators Preceding Year of Plan Reduction from Year (2003) (2004) Reduction from previous year | | | | | |
| | Max. allowable import | 1,619 | 1,189 | 430 | | |
| Supply of ODS | Actual imports (2003) or planned imports (2004) | 1,472 | 1,124 | 495 | | |
| Demand of | Manufacturing | 198 | 50 | 148 | | |
| ODS projected | Servicing | 1,274 | 1,074 | 200 | | |
| in NCPP | Total | 1,472 | 1,124 | 348 | | |

2. INDUSTRY ACTION

Table 7: Industry Targets

| Sector | Consumption Preceding Year 2003 (ODP MT) | Target Consumption Year of Plan 2004 (ODP MT) | Reduction Within Year of Plan | Number of Projects Completed | Number of Servicing Related Activities | ODS Phase- out (ODP tonnes) |
|------------------------------------|---|---|--|------------------------------------|--|-----------------------------|
| | | Manufa | cturing | | | - |
| Aerosol | | | 5 | 2 | | 5 |
| Foam | | | 143 | 22 | | 143 |
| Refrigeration | | | | | | |
| Solvents | | | | | | |
| Other | | | | | | |
| Subtotal | 198 | 50 | 148 | 24 | | 148 |
| | | Servi | cing | | | |
| Refrigeration and air conditioning | 1,274 | 1,074 | 200 | - | 8 | |
| Subtotal | 1,274 | 1,074 | 200 | - | 8 | 200 |
| | | | | | | |
| GRAND TOTAL | 1,472 | 1,124 | 348 | 24 | 8 ¹ | 348 |

¹ Eight activities are (i) Operation of MASHRAE Project, (ii) Chiller Replacement/Retirement, (iii) Retirement of CFC-12 Domestic Refrigerators, (iv) Retirement of CFC-12 Refrigerator Containers, (v) New Vehicle Inspection Requirement Upgrading Capacity of Inspection Stations, (vi) Train-the-Trainer Program and Certification of MAC Service Technicians, (vii) Financial Subsidy for R&R Machines; and (viii) Customs OPD Training Program.

3 TECHNICAL ASSISTANCE ACTIVITIES PLANNED

3.1 MDI Program

18. The final draft of the National Transition Strategy for the Phaseout of CFCs in the MDI sector has been circulated by the National Pharmaceutical Control Bureau (NPCB) to all Working Group (WG) members. A meeting was organized in January 2004 to finalize the report before the start of implementation, and a working group meeting was held in March 2004. In addition, the NPCB organized an Awareness Seminar on CFC-free MDIs in May 2004, as well as a brain-storming session, to finalize the strategy report before it was officially circulated to public. A seminar/workshop and a series of road shows, as well as the publishing of healthcare awareness information, will also be conducted by NPCB in September-December 2004.

3.2 MAC Inspection Program (PUSPAKOM)

- 19. The second draft of the Standard Inspection Training Manual (SITM), prepared by Global Mist Sdn Bhd, was submitted to DOE in January 2004. Meetings were held in January 2004 to finalize the SITM, and a final draft was submitted to DOE in February 2004. Three hundred (300) copies of the SITM were printed, to be used during training sessions. Printing of pamphlets and stickers was completed in June 2004.
- 20. To date, 10 series of training sessions using RI units and the SITM have been completed. Besides PUSPAKOM officers, Road Transport Dept (RTD) and DOE State Offices were also trained during these sessions. Comments received during sessions have provided an opportunity for DOE to improve the implementation of refrigerant inspection regulation and enforcement. DOE has proposed that a MAC test be included in the road-test exhaust inspection.
- 21. Twenty (20) of the 40 RI units that were purchased in December 2003 have been distributed to PUSPAKOM and DOE State Officers. The technical assistance portion of the project is completed. Forty (40) additional RI units will be purchased under the program and will be distributed to Puspakom, RTD and DOE State Offices by September 2004.

3.3 Custom-ODS Training Program (COTP)

22. Four (4) series of Customs ODS Training Programs (COTP) will be jointly organized by AKMAL/DOE in 2004. Twenty (20) RI units were given to the Customs Department in April 2004. By the end of 2004, more than 100 Customs and DOE officers are expected to be trained on the use of RI units and the COT Manual. 300 copies of COTM in dual languages have been printed, and were used for the first series of COTP in April 2004. Approximately 35 Custom and DOE officers attended the training, which was held at AKMAL, Melaka. A second COTP will be held in September 2004. Forty (40) additional RI units will be purchased under the program and will be distributed to Customs and DOE State Offices by September 2004.

4 INDUSTRY ACTION (SUB PROJECT)

4.1 MAC Servicing Sector

<u>Certification of ATC – Train the Trainer Program (TTP)</u>

23. A four-day (4) training program was conducted by the Group Coordinator (GC) in January 2004. Each Authorized Training Center (ATC) was represented by 2 qualified individuals who attended the training session. The training described the NCFCP and the TTP in detail, provided hands-on technical training on the use of R&R units, MAC Service Tools, RI units, and a theoretical and practical test. A MAC training manual was distributed

during training. The training was also attended by DOE officers. The training report was submitted to DOE by the consultant in February 2004.

Procurement of Equipment (R & R CFC 12 and MAC Tools)

24. The voucher program started in February 2004, and all ATCs received a voucher for USD 8,280. ATCs were required to use the vouchers within the following two months, as their expiration date was April 2004. The GC assisted DOE with the coordination of the distribution of vouchers and the procurement of equipment, which started in April 2004. The GC also participated in the distribution of MAC service tools kit, and R&R units. The process of procurement, distribution, installation and commission was completed in June 2004. The total cost of procurement was USD 248,400, which was disbursed in early July 2004.

Certification of Service Technician Program (CSTP)

- 25. After the ATC certification program was completed, ATCs signed Letters of Commitment (LOC) with DOE, in which they agreed to conduct Train the Trainer (TTP) and Certification of Service Technician Programs (CSTP). These programs consist of three stages;
 - a) Registration of MAC Service Workshops ATCs must register as many workshops within their region as possible, and later send the listing of registered shops to GC/DOE. Registration and survey forms were prepared and distributed to ATCs by DOE in April 2004. These forms are to be filled by MAC service shops for verification purposes. After the registration process is completed, ATCs will conduct training of service technicians, according to stipulated procedures. The GC and DOE/PMU will assist ATCs during training, as part of monitoring process.
 - b) Verification/Selection Process The objective of this process is to verify the eligibility of service workshops to receive NCFCP subsidies. Each registration form will be reviewed and all eligible workshops will be visited for verification purposes before vouchers are distributed. Verification and selection procedures are carried out by DOE.
 - c) Voucher Subsidy/Procurement Subsidies for basic tools will be given to all 3,000 service workshops. Only 1,000-1,500 eligible service workshops will receive subsidy for R&R units.
- 26. In March 2004 each ATC received copies of the guidelines and procedures for training, a MAC Training Manual, registration forms, a voucher entitlement survey (i.e. registration) form and a copy of the Malaysia-NCFCP. Posters of "the Code Good Work Practice" and of the "Standard Operating Procedure of R&R/MAC tools" were also distributed to all ATC/MAC workshops during training seasons.
- 27. GC, DOE and ATCs have jointly organized road-shows on TTP/CSTP. The objective of the road-shows is to clarify details about the NCFCP program, including the subsidy component, as well as to promote compliance with the Refrigerant Management Regulation of 1999. The first road-show was conducted in Seremban, Negeri Sembilan in March 2004 and was attended by approximately 40 participants from MAC Servicing workshops. A second road-show was held in Melaka in April 2004.
- 28. Three (3) additional road-shows have been conducted in Shah Alam, Selangor and in Penang in May 2004. A total of 200 service technicians from various MAC workshops around the Kuala Lumpur/Klang Valley, Selangor and Penang attended the half-day seminar.
- 29. A few additional road-shows are expected to be conducted in the Northern and Southern regions of the country, depending on the number of service workshops registered and depending on requests by ATCs. It is estimated that 3,000 car service workshops will participate in the CSTP by the end 2005.
- 30. By August 2004, 44 CSTP sessions have been conducted by ATC/GC/DOE in various locations around Malaysia. 1,300 technicians and service workshops have participated in

training workshops/CSTP. Certificates and vouchers for MAC service tool kits were distributed to those who participated and passed the CSTP in July 2004. Distribution of vouchers for R&R units is expected to begin in early November 2004.

4.2 ODS Solvent Study

- 31. Two eligible SMEs have been identified (Seasonair Sdn Bhd and Malayawata Sdn Bhd), with a consumption of 8.58 MT of CFCs. Letters were sent to both companies in February 2004, and the companies were visited in February and May, respectively, to request additional information on the technology in use, levels of consumption and potential costs of conversion. Project proposal for financial assistance (for Seasonair Sdn Bhd) to phase out its ODS solvent consumption was prepared by PMU staff and sent to Seasonair for final comments. Final proposal will be sent to CETEC for appraisal in November 2004. Projects are expected to be completed by mid of 2005.
- 32. Additional letters were sent 2 potential solvent suppliers to request information on clients who may be eligible for financial assistance under the NCFCP. In June 2004, DOE held meetings with 2 main suppliers of 1,1,1 TCA/CFC to discuss and promote non-ODS solvent alternatives technologies. Letters were sent in July 2004 to those suppliers to remind them of their commitment to provide list of potential industries that still consume 1,1,1 TCA.

4.3 Foam Phase-Out Project

- 33. **Group project** Vouchers in the amount of USD 7,500 were distributed to 14 foam SMEs participating in the project in January 2004. The total cost for conversion of the 14 SMEs was USD 105,000 and the phase out achieved was 10.25 MT of CFCs. Final verification and monitoring was conducted by DOE/GC/CETEC in June-July 2004. The project was completed in July 2004.
- 34. *Individual projects* Appraisal of 18 identified individual projects was completed in February 2004. Estimated costs of conversion were USD 866,630 with a total phase out 100.14 MT. Five additional projects were appraised by May 2004, with an estimated cost of USD 202,241 and a phase out of 32.11 MT. A half-day seminar on CFC Phase out in Foam sector and a signing ceremony for individual projects (attended by 22 of the 23 industries) was conducted in June 2004. All 23 projects are expected to be completed by the end of 2004.

4.4 Commercial Refrigeration Servicing Sector (CRSS)

35. A concept paper on the objectives of the CRSS program was prepared by PMU/DOE, along with TOR for a GC. A potential consultant (GC) will be identified to assist DOE in developing the program. The program is expected to begin in January 2005.

4.5 Project Management Unit (PMU)

- 36. PMU operations started in January 2004. Several public awareness events have been arranged and are expected to take place in 2004 including road-shows, media advertisement, posters and others. It is estimated that USD 223,368 will be disbursed in PR-related activities by the end of 2004.
- 37. A summary of all Technical Assistance activities and Industry Actions that are planned for 2004 is included in the following tables:

Table 8: Technical assistance activities that will be carried out in CY 2004

| | (CY2004) PROPOSED ACTIVITY | OBJECTIVES | To increase awareness on CFC MDI transition plan | |
|----|--|---|--|--|
| | CFC in MDI Sector | TARGET GROUP | Pharmaceutical Association, Doctors, MDI Importers, and Patients | |
| | | IMPACT | To promote the use of non-CFC MDI | |
| NO | DESCRIPTION | STATUS/REMARKS | | |
| 1 | Selection of consultant Development of strategy | NPCB appointed by DOE to do the survey/research. The final draft on National Transition Strategy to Phase Out CFC in MDI has been circulated by NPCB to WG members. WG met in January 2004 and March 2004 to finalize the report before actual implementation of work, as required in TOR. Workshop and series of road shows awareness program, as well as printing of health care awareness information, will be conducted by NPCB in September-December 2004. A seminar was organized by NPCB in May 2004. 500 copies on National Strategy document will be published in September 2004. | | |

| | (CY2004) PROPOSED ACTIVITY | OBJECTIVES | Prevention of R134a MAC system to be retrofitted with R12 (CFC-12) (reverse retrofitting) | |
|----|---|---|---|--|
| | FROPOSED ACTIVITY | TARCET CROUR | PUSPAKOM, RTD and DOE State Offices' | |
| | MAC Inspection | TARGET GROUP | Commercial and Private car owners | |
| | | IMPACT | Reduction of CFC-12 consumption in MAC service | |
| | | IIVIFACI | sector and increase awareness of vehicle's owners | |
| NO | DESCRIPTION | STATUS/REMARKS | | |
| 1 | Development of a Standard Inspection Training Manual (SITM) | DOE appointed consultant to prepare SITM and publish awareness materials. 300 SITM have been published. 2000 stickers and 3,000 pamphlets on MAC requirement inspection also have been printed and distributed. | | |
| 2 | Amendment to Environmental Regulation (Refrigerant Management) 1999 and other regulations under Road Transport Act /RTD | Cabinet paper to propose of Refrigerant Management amendment has been sent to NRE in August 2004 for Cabinet Minister's approval. | | |
| 3 | Procurement of equipment and delivery | First batch of RI (40 units) delivered to PUSPAKOM, Custom and DOE State Offices in April 2004. Advertisement to procure for the second batch of RI units (80) was published in 16 May 2004 and suppliers were selected in June 2004. RI units will be delivered to Customs, DOE, AKMAL and RTD by September 2004. | | |

| | (CY2004) PROPOSED ACTIVITY | OBJECTIVES | Build technical capacity of custom officials to monitor the import of ODS | |
|----|--|--|---|--|
| | Customs Training | TARGET GROUP | Custom officials and DOE State Officers | |
| | Program | IMPACT | Strengthen effectiveness of import control system of CFC | |
| NO | DESCRIPTION | STATUS/REMARKS | | |
| 1 | Development of a Custom-ODS Training Manual (COTM) and Course | DOE initiated discussion with the Customs Department and the Custom Training Center (AKMAL) to organize 4 Custom ODS Training Programs (COTP) for 2004. 300 copies of COTM were printed and used in the first Customs-ODS Training in April 2004. 2nd COTP will be conducted in September 2004. | | |
| 2 | Training and Procurement of equipment | in April 2004. 2nd COTP will be conducted in September 2004. 4 series of training will be conducted by AKMAL/DOE in April, September, November and December 2004, during which,100 officers from Customs and DOE are expected to be trained on the use of RI units. 20 RI units procured under the MAC Inspection Refrigerant Program were given to Customs use for monitoring illegal imports of CFC. 25 RI units from the second batch of 80 units purchased will be given to Customs. The remaining units will be given to PUSPAKOM (20 units), DOE (30 units) and RTD (5 units). | | |

Table 9: Industry Action (Sub Project) that will be carried out in CY 2004

| | (CY2004) PROPOSED ACTIVITY | OBJECTIVES | Increase technical capacity of the MAC service workshops | |
|----|--|---|---|--|
| | Certification of ATC (Train the Trainer Program) Certification of MAC | TARGET GROUP Authorized Training Centers (ATC) and MAC service Workshops | | |
| | Service Workshop | | Reduction of CFC-12 consumption in MAC service, | |
| | Technicians | IMPACT | proper handling and good workshop practice | |
| NO | DESCRIPTION | | STATUS/REMARKS | |
| 1 | Certification of ATC Train-the-Trainer Program (TTP) | 80 service technicians from 30 ATC and DOE staff attended the training on application of MAC tools/manual and R & R in January 2004. Equipment vouchers were distributed to 30 ATCs in February 2004. The expiry date of vouchers was April 2004. All 30 ATC are expected to conduct training of 3,000 MAC service workshop technicians by 2006. It is expected that 1,500-1800 car workshops will have participated in CSTP by the end of 2004. To date 1300 service technicians and | | |
| 2 | Procurement of Equipment (R&R and MAC Service tool) | MAC service workshops have participated in CSTP. • Procurement, training, installation and commissioning of R & R and MAC tools was completed in June 2004 | | |
| 3 | Certification of Service Technician Program (CSTP) | 1,000-1,500 service MAC tools were sent passed CSTP. | nop will receive the basic tools (R 134a tools) and about workshop will receive R&R subsidy. To date, voucher for to 600 MAC service workshops that have attended and on and selection for workshops and voucher for R & R will stember 2004. | |

| | (CY2004) PROPOSED ACTIVITY | OBJECTIVES To reduce amount of ODS used in manufacturing Industry process | | |
|----|--|--|--|--|
| | Phasing out CFC via | TARGET GROUP | SME (Manufacturing Industries) | |
| | Solvent | IMPACT | Phase out the use of CFC-113, 1,1,1 TCA and CTC in SME | |
| NO | DESCRIPTION | STATUS/REMARKS | | |
| 1 | Identification of remaining users of CFC 113, 1,1,1TCA and CTC | Consultant hired to conduct survey and determine remaining CFC users in SME Manufacturing Industry. 2 SMEs were identified, Seasonair and Malayawata, and site visits were made to the enterprises in February and May, 2004. | | |
| 2 | Preparation of proposal | Letters were sent to Seasonair and Malayawata requesting information on substance used and on potential technological conversion. Letters to suppliers were sent requesting for information of clients users of ODS solvent in their manufacturing process. Meeting with 2 ODS Solvent suppliers held in June 2004. Draft proposal for financial assistant (Season Air Sdn Bhd) has been prepared by PMU and sent to the company for final comments. | | |

| | (CY2004) PROPOSED ACTIVITY | OBJECTIVES | To phase-out the use of CFC 11 in the manufacturing of polyurethane foam and conversion to non CFC Process | |
|----|--|---|--|--|
| | Conversion to non ODP In the FOAM | TARGET GROUP | SME in manufacturing of FOAM, cold rooms, bonded trucks, boats, cushions, refrigeration systems etc. | |
| | Manufacturing Inds. | IMPACT | Reduction of CFC 11 in Manufacturing process | |
| NO | DESCRIPTION | STATUS/REMARKS | | |
| 1 | Preparation of proposal for SME and identifying the manufacturer of foam | 14 SMEs (Group Project) were identified for financial assistance and 23 Industries (Individual Project) proposals were received by DOE in January 2004. Vouchers for procurement of equipment and training for 14 SMEs were distributed in January 2004. Final monitoring was conducted in June-July 2004. Group Project was completed in July 2004. The signing ceremony for 22 individual projects was conducted in June 2004. The projects expected be completed by the end of 2004. | | |

| | (CY2004) PROPOSED ACTIVITY | OBJECTIVES | To provide Government with necessary support to carry out all activities proposed under this plan | |
|----|--------------------------------|---|--|--|
| | Draiget Management | TARGET GROUP | DOE | |
| | Project Management Unit | IMPACT | Strengthen capacity of Government to carry out the NCFCP to ensure timely and effective preparation and execution of the project activities | |
| NO | DESCRIPTION | STATUS/REMARKS | | |
| 1 | Set up of PMU | PMU was established and started operations in January 2004. | | |
| 3 | Public Awareness Activities | NOU/PMU staff attended the following meetings: Meeting on Awareness and Communication Strategy (Jan. 2004, Manila), Informal consultation on MB (March, 2004 Buenos Aires), Extraordinary Meeting on MOP (March, Montreal), Financial Intermediary Meeting (April, 2004, Washington), 2004 SEAP Network and Customs ODS Meeting (April 2004, Agra & Nov. 2004, Phenom Penm), NCFCP Work Program Meeting (May 2004, Hanoi), HCFC Alternatives Meeting (May 2004, Tokyo), 24th OEWG Meeting (July, Geneva) and 16th MOP (Nov,Prague, Czech.). | | |
| 4 | Regulatory Support | Actions regarding ragencies. An amera has been approved | regulatory requirements were discussed among relevant andment of the Refrigerant Management Regulation (1999) by the NSC and the Environmental Council. A cabinet to NRE for approval. | |

5. GOVERNMENT ACTION

Verification of the ODS Consumption Level and Financial Audit.

- 38. The Government commissioned a consumption verification report. The report was sent to the National Audit Department (NAD), where a process of verification and audit will take place. The endorsed verification report will be sent to WB/ExCom by September 2004. The 2003 ODS import data was sent to the Ozone Secretariat in August 2004.
- 39. The 2003 financial report was sent to NAD in March 2004 for verification and auditing. The audit was carried out by NAD and a final report was received by DOE in June 2004.

Mandatory Inspection Requirement of Commercial Vehicles

- 40. As an integral part of the NCFCP strategy to reduce the use of CFC in MAC servicing, the Government proposed to introduce a mandatory vehicle inspection, particularly for commercial vehicles. DOE initiated discussions with the Road Transport Department (RTD), and PUSPAKOM and an amendment of the existing regulations (RTD and DOE) may be needed. Discussions on the regulatory actions will continue and are expected be finalized by the end 2004. DOE has appointed a consultant to carry out the preparation of the Standard Inspection Training Manual (SITM), which will be used as material in capacity building activities for Puspakom and DOE State Offices.
- 41. Under this program, DOE procured 40 RI units in Feb 2004. Hands-on training on the use of RI was conducted in January 2004. RI units were distributed to Customs, PUSPAKOM, RTD and DOE State Offices in March 2004. 10 series of hands-on training on SITM and RI use were carried out in April-May 2004. 70 officers from the PUSPAKOM and DOE participated in training activities.
- 42. Before September 2004, an additional batch of 80 RI units (under MAC Inspection and Customs-ODS Program) will procures and distributes to RTD, Customs, PUSPAKOM and DOE.

Chillers/Refrigeration Servicing Sector Program (CRSS)

43. TOR and SOW prepared and sent to WB on 20 August 2004 for approval. A Group Coordinator will be appointed to develop and carry out the CRSS program 2005-2007. A survey and inventory for chiller owners was carried out in July-August 2004. In addition, potential remaining industries that still use CFC in the commercial refrigerant sector will be identified and project proposals will be prepared before December, 2004 or early January 2005.

ODS Awareness Activities

44. DOE also plans to implement a number of regulatory actions related to ODS and to carry out public awareness activities to increase knowledge and awareness of the enterprises and the public of the government policies pertaining to completed phase out of CFC, TCA, and CTC.

45. Key activities for Government actions 2004 are summarized below.

| NO. | POLICY/ACTIVITY PLANNED | SCHEDULE OF IMPLEMENTATION | STATUS |
|-----|--|-----------------------------|--|
| 1. | Control import quota for CY2004 through AP system ¹ | January-December 2004 | Import control policy in place and in operation |
| 2. | Verification of import quota for CY2003 Verification of Financial for CY2003 | September 2004 June 2004 | On going Completed |
| 3. | Announcement of Import Quotas for CFCs from 2002-2010 ² | December 2002 | The AP advisory Committee chaired by MITI met in January 2004. |
| 4. | Criteria and procedures for financial support for investment projects ² | January-December 2004 | On-going for solvent and commercial refrigerator subsector |
| 5. | Announcement of Mandatory MAC Inspection Requirement ³ | October - December 2004 | On-going to amend Environment Quality (Refrigerant Management) Regulation 1999 |
| 6. | Update Yearly National Survey Uses of Methyl Bromide in QPS and non QPS activities | June-July 2004 | Completed. Develop survey form and distribution. Survey carried out together with the Dept. of Agriculture. Only 10.01 MT MB imported for non QPS in 2003. |
| 7. | Updated National Survey in Chiller Commercial Sector | July-August 2004 | 250 survey forms and remind letters to comply with EQ (Refrigerant Management) |

¹ 2003 Performance Target

² 2004 Performance Target

³ 2005 Performance Target

| NO. | POLICY/ACTIVITY PLANNED | SCHEDULE OF IMPLEMENTATION | STATUS |
|-----|---|--|---|
| | | | Regulation 1999 were sent to chiller owners |
| 8. | Hands-on Training for DOE Officers (under MAC sectors, Custom-ODS/COTP and SITM program. | 12-15 January 2004 (MAC-ATC Training) | Completed. Attended by 80 MAC service technicians and DOE Staff. |
| | | 19 January 2004 (Hand on Training for RI) | Completed. Attended by 25 DOE staff, Customs, RTD and Puspakom officers. |
| | | April-May 2004 (SITM Training, 10 series) | Completed. Attended by 70 officers from DOE, Puspakom and RTD. |
| | | 28-29 April 2004 (COTP, Series I) | Completed. Attended by 35 officers from Customs and DOE. |
| | | 20-24 September 2004 (COTP, Series II) | On going |
| | | November 2004 (COTP, Series III) | |
| | | December 2004 (COTP, Series IV) | |
| | ODS Regulation Training Course/ Road show on Air Pollution and | 31 March 2004 | Completed. Attended by 12 officers from PETRONAS. |
| | Ozone Protection Regulations (for DOE State Office) | August, September, December 2004 | On-going. Program will be jointly organized with DOE State Offices. |
| 9. | Continue dialog on initiative to promote the use of ODS-free products in all new Government Contracts | Oct-Dec 2004 | Meeting with Ministry of Finance/MITI/Ministry of Domestic Trade/NGO/Suppliers- on-going discussion |
| 10. | Establish Project Management Unit (PMU) | January – December 2004 | 4 PMU staff recruited as experts. |
| 11. | Enforcement/Audit | March, May, July, Nov. Dec 2004 | On going activities. Identification potential project and monitoring projects approved by MLF |
| 12. | Develop Strategy – NO new CFC-MAC and Refrigeration System | October 2004 – June 2005 | Identification on options in any new vehicles/On-going discussion |

| NO. | POLICY/ACTIVITY PLANNED | SCHEDULE OF IMPLEMENTATION | STATUS |
|-----|--|--|---|
| 13. | Develop Strategy – Ban the Import/Sale and Use CFC in the MAC and Refrigerator Sector. | November 2004 – September 2005 | Identification of potential guideline/on-going discussion |
| 14. | Seminar NCFCP/Conference /Training Workshop | Awareness Seminar on CFC Free in MDI (9 May 2004) | Completed. Attended by 60 officers from Pharmaceutical and Asthma Associations. |
| | | Seminar on Chemistry in Environmental Convention (11 may 2004) | Completed. Attended by 60 officers from universities and industries. |
| | | CRSS Training I (18-19 May 2004) | Completed. Attended by 15 Chiller service contractors and DOE officers. Jointly organize with ODS Centre Sdn Bhd |
| | | Training Course on Ozone Protection for Custom Officers (22 May 2004) | Completed. Attended by 45 Customs officers |
| | | CRSS) Training II (25-25 August 2004) | Completed. Attended by 8 chiller service contractors and DOE officers. Jointly organized with ODS Centre Sdn Bhd |
| | | National ODS Seminar (28 Sept ember 2004) | In celebration of the International Ozone Day, a seminar was jointly organized with Penang DOE State Office. |
| | | Seminar on Chillers Refrigerant Management (30 September 2004) | Jointly organized with MASHRAE/IEM |
| | | CRSS Training III (December 2004) | Jointly organized with ODS Centre Sdn Bhd |
| 15. | MAC Servicing Sector Road Shows. | March - November 2004 | On-going. More than 5 road- shows on TTP are expected to be carried out by DOE. |
| | Certification of Service Technician Program (CSTP)/Theory and Handson Practical Training for R & R | May-November 2004 | On going. To date, 1,300 service technicians and MAC workshop have participated in CSTP. Expected 1,800 MAC service technicians will be trained by the end 2004. Targeted 3,000 will participate in CSTP by the end of 2005 |

| NO. | POLICY/ACTIVITY PLANNED | SCHEDULE OF IMPLEMENTATION | STATUS |
|-----|---|---|-----------|
| 16. | Final announcement in local news paper to stop use CFC in | 17 March 2004 | Completed |
| | manufacturing sectors and invite to participate in NCFCP | October 2004 | On going |
| | Announcement establishment ATC/CSTP | 29 April 2004 | Completed |
| 17. | Printing and Publication: | | |
| | *Pamphlet for Ozone Protection Section | Jan 2004 | Completed |
| | *MAC Service Sector Voucher Scheme | April 2004 | Completed |
| | *ODS Folder/kit | April 2004 | Completed |
| | *2004 ODS Calendar | Jan 2004 | Completed |
| | *NCFCP pamphlet | July 2004 | Completed |
| | *MAC Training Manual/ R & R | Jan 2004 | Completed |
| | *Custom-ODS Training Manual | Feb 2004 | Completed |
| | *Standard Inspection Training | April 2004 | Completed |
| | Manual | · | |
| | *Poster for Code of Good Work Practice-MAC | May 2004 | Completed |
| | *National Transition Phase out Strategy CFC in MDI | August 2004 | Completed |
| | *National MB Phase-Out Strategy | November 2004 | On going |
| | *National Strategy and Action Plan for ODS Public Awareness | Oct 2004 | On going |
| | *Pamphlet for MAC Inspection Requirement | May 2004 | Completed |
| | *Stickers for MAC Inspection Monitoring | May 2004 | Completed |
| | *Sticker for NCFCP Awareness | July 2004 | Completed |
| | *Pamphlet for List of MAC-ATC | April 2004 | Completed |
| | *Save Our Sky-ODS Bag/T shirt | November 2004 | On going |
| | *Pamphlet for Ozone-MP for School Children/Public | September 2004 | On going |
| | *Pamphlet for Standard Operating Procedure for MAC | August 2004 | Completed |
| | *ODS Bulletin *Document for MP Implementation | April, June, Sept, Dec 2004 | On going |
| | in Malaysia | September 2004 | On going |
| | *Ozone Corner | March, June, Sept, Dec 2004 | On going |
| 18. | ODS Web site | February, April, June, Sept, Nov, Dec 2004 | On going |

5. BUDGET FOR 2004

| No. | Activity | Planned Expenditures in 2004 (USD) |
|-----|---|---|
| 1. | Conversion of Seasonair sub-project | 340,751 |
| 2. | Conversion in Foam/commercial refrigeration sectors | 1,250,000 |
| 3. | MAC - Training for mandatory inspections | 250,000 |
| 4. | MAC servicingTrain-the-Trainer | 250,000 |
| 5. | MAC servicing Financial subsidy of basic tools | 1,100,00 |
| 6. | MAC servicing Financial subsidy of R&R machines | 0 |
| 7. | Conversion in solvent sector | 300,000 |
| 8. | RefrigerationTrain-the-Trainer | 0 |
| 9. | RefrigerationFinancial subsidy | 0 |
| 10. | TA for MDI | 50,000 |
| 11. | Custom training | 134,000 |
| 12. | PMU – Operation | 200,000 |
| 13. | PMU – PR | 223,500 |
| 14. | PMU – Monitoring | 100,000 |
| | TOTAL | 3,098,251 |

Note: Funds remaining from the 2003 allocation will be used to cover activities proposed in the 2004 Annual Plan, since costs will exceed the 2004 allocation.

MALAYSIA ODS PHASE-OUT PROJECT : THE NATIONAL CFC PHASE-OUT PLAN (NCFCPP) PART I

REPORT OF CERTIFIED AUDITOR

We have audited procedures for issuing import quota against the Application Import License executed by the Ministry of International Trade and Industry and import control executed by the Royal Customs Department including supporting documents to certify actual consumption (actual imports) of Annex A, Group I Chemicals (i.e. CFCs); 1,1,1-Trichloroethane (1,1,1-TCA); and Carbon Tetrachloride (CTC) for the period 1st January 2003 to 31st December 2003. These supporting documents are the responsibility of the concerned agencies, the Department of Environment (DOE), the Ministry of International Trade and Industry (MITI), the Royal Customs Department and the Statistics Department. Our responsibility is to express an opinion on these supporting documents based on our audit.

We conducted our audit in accordance with the Malaysian Approved Standards on Auditing to obtain reasonable assurance about whether the supporting document for issuing import quota against the Application Import License and import control are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and the type of these controlled chemicals that have been issued against the Application Import License and actually imported or exported for the year throughout 2003. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, these procedures and supporting documents can be fairly relied on to support imported amount of these controlled substances for the year throughout 2003 and they are adequately documented.

(NORRIZAN ST. TAHIR)
FOR AUDITOR GENERAL
MALAYSIA

23 September, 2004.

A. Allowable Imported Level Of Controlled Substances As Permitted By MITI Under The AP System

| No. | Importer | CFC- 11 (mt) | CFC-12 (mt) | CFC- 113 (mt) | CFC 114 (mt) | CFC- 115 (mt) | CC14 (mt) | 1,1,1- TCA (mt) |
|-----|--|--------------------|----------------|---------------------|--------------------|---------------------|--|-----------------------|
| 1. | Chemquest Trading (M) Sdn. Bhd. | 0 | 66,60 | - | - | 77 | po por governo | - |
| 2. | Carto Sdn. Bhd. | 17,00 | 0 | • | | - | ** | • |
| 3. | CCM Chemicals Sdn. 8hd. | 28.00 | 78,00 | | * | - | v. 2007/swanter | 35.00 |
| 4, | Daichem Enterprise (M) Sdn. 8nd. | 59,74 | 89.50 | * | - | | * | • |
| 5. | Aurora Chemicals Scn.8hd. | 4,50 | 15.50 | Ser. | | * | - | and the contraction |
| 6. | Keylargo (M) Sdn. Bhd. | 15.00 | 170.00 | | ** | - | an excess of the second | * |
| 7. | Perusahaan Kimia Gemilang Sdn. Bhd. | 39,45 | 76,76 | W and the second | - | | * | 10.00 |
| 8. | ST Chemicals Sdn. Bhd. | 0 | 160.00 | • | <u>.</u> | - | The second section of the section of th | • |
| 9. | Sing Swee Bee Sdn. Bhd. | 8.00 | 58.28 | - | | - | and the second s | |
| 10. | Tesway (M) Sdn. Bhd. | 0 | 65.00 | _ | _ | - | - | |
| 11. | Texcarrier Sdn. Bhd. | 29.00 | 111.00 | - | - | - | * | • |
| 12. | Unigas Sdn, Bhd. | 17.00 | 106.00 | - | - | - | * | <u> </u> |
| 13. | Westech Sdn. Bhd. | 9.20 | 305.80 | • | a | | | |
| 14. | Globechem Sdn. Bhd. | - | 30.00 | | - | - | - | |
| 15. | Nagase Sdn. Bhd. | - | 7.00 | - | - | - | : - | 20.00 |
| 16. | Kimia Pertama (M) Sdn. Bhd. | · · | - | * | - | | _ | 76.00 |
| 17. | Contigencies* | 100.55 | -115.88 | 3.00 | - | 21.00 | 11.50 | 336.00 |
| | Total Quota (A) | 327.44 | 1223.56 | 3.00 | 0 | 21.00 | 11.50 | 477.00 |

Note:

* Contigencies were set aside for applications for imports of Ozone Depleting Substances (ODS) by Government Department/Agencies. Importers may apply for additional quota and MITI can approve by using the contingencies quota if the quantity set aside has not being utilized by any Government Department/ Agencies.

B. Actual Quantity Of Controlled Substances Imported During The Calender Year 2003 (1st January 2003 – 31st December 2003)

| No. | Importer | CFC- 11 (mt) | CFC-12 (mt) | CFC- 113 (mt) | CFC- 114 (mt) | CFC- 115 (mt) | CC14 (mt) | 1,1,1. TCA (mt) |
|-----|--|--------------------|----------------|---------------------|---------------------|---------------------|--------------|---------------------------------|
| 1. | Chemquest Trading (M) Sdn. Bhd | 0 | 66.59 | • | <u></u> | - | • | - |
| 2. | Carto Son, 8hd. | 0 | Ü | - | + | | | <u> </u> |
| 3. | CCM Chemicals Son. Bho. | 28.00 | 63.12 | - | - | * | - | C |
| 4, | Daichem Enterprise (M) Sdn. Bhd. | 59.74 | 89.49 | - | - | • | - | - |
| 5. | Aurora Chemicals Sdn.Bad. | 4.50 | 15.49 | - | - | ** | - | * |
| 6. | Keytargo (M) Sdn. Bhd. | 14.94 | 170 00 | _ | Annual Contraction | _ | | |
| 7. | Perusahaan Kimia Gemilang Sdn. Bhd. | 39.45 | 64.02 | - | _ | - | - | 10.00 |
| 8. | ST Chemicals Sdn. Bhd. | 0 | 129.22 | - | | - | | Transport Constitution (C. 1) |
| 9. | Sing Swee Bee Sdn. Bhd. | 8.00 | 58.28 | - | • | - | - | *** |
| 10. | Tesway (M) Sdn. Bhd. | 0 | 65.00 | - | | - | - | Santonio a tra retrotorio entre |
| 11. | Texcarrier Sdn. 8hd. | 29.00 | 86.00 | - | • | - | | Section 1997 |
| 12. | Unigas Son, 8hd | 16.93 | 106.00 | _ | • | _ | - | |
| 13. | Westech Son, Bhd | 9.20 | 305.07 | - | • | - | - | |
| 14. | Globechem Sdn. Bhd. | - 1 | 29.97 | _ | | - | - | <u> </u> |
| 15. | Nagase Sdn. Bhd. | - | 7.00 | - | - | * | - | 0 |
| 16. | Kimia Pertama (M) Sdn. Bhd. | - | - | * | _ | * | • | 59.28 |
| 17. | Contigencies* | - | .#L | | * | - | - | - |
| | Total Import (B) | 209.76 | 1255.25 | - | - | - | 4 | 69.28 |

| Oifferenca | CFC- | CFC-12 | CFC-113 | CFC- | CFC-115 | CC 14 | 1,1,1-TCA |
|------------|--------|--------|---------|------|---------|-------|-----------|
| | 11 | | | 114 | | | |
| A-B | 117.68 | 31.69 | 3.00 | - | 21.00 | 11.50 | 69. 28 |

C. Reconciliation

| | CFC- | CFC-12 | CFC-113 | CFC- | CFC-115 | CC 14 | 1,1,1-TCA |
|----------------|--------|---------|---------|------|---------|-------|-----------|
| | 11 | | | 114 | | | |
| Total Quota | 327.44 | 1223.56 | 3.00 | 0 | 21.00 | 11.50 | 477.00 |
| Total Import | 209.76 | 1255.25 | - | # | - | ** | 69.28 |
| Reconciliation | 117 68 | 31.69 | 3.00 | 0 | 21.00 | 11.50 | 407.72 |

D. Description Of Differences Of Quota And Actual Import

Unused quotas by importers and quantities reserved by MITI as "contingencies" make up the differences as follows:

| No. | Importer | CFC- 11 (mt) | CFC-12 (mt) | CFC- 113 (mt) | CFC- 114 (mt) | CFC-115 (mt) | CC14 (mt) | 1,1,1- TCA (mt) |
|--|---|--------------------|----------------|---------------------|---------------------|--|--------------|-----------------------|
| 1. | Chemquest Trading (M) Sdn. Bhd. | 0 | 0.01 | • | - | | | - |
| 2. | Carto Sdn, Bhd. | 17.00 | 0 | | | er e | | |
| 3. | CCM Chemicals Sdn. Bhd. | 0 | 14.88 | • | - | | | 35.00 |
| 4. | Daichem Enterprise (M) Sdn. Bhd. | 0 | C.O1 | - | - | • | | - |
| 5. | Aurora Chemicals Son.Bhd. | Q | 0.014 | * | - | • | | - |
| 6 | Keylargo (M) Sdn. Bhd. | 0.06 | C | - | _ | / * | | - |
| 7. | Perusahaan Kimia Gemilang Sdn. Bhd. | 0 | 12.74 | - | : - | • | | 0 |
| 8, | ST Chemicals Sdn. Bhd. | 0 | 30.78 | • | - | • | | - |
| 9. | Sing Swee Bee Sdn. Bhd. | Û | C | - | ķa. | *** | | - |
| 10. | Tesway (M) Sdn. Bhd. | ٥ | 0 | • | - | - | | - |
| 11. | Texcarrier Sdn. Bhd. | 0 | 25.00 | - | | | | - |
| 12. | Unigas Sdn. Bhd. | 0.07 | 0 | - | - | 1 - | ļ | + |
| 13. | Westech Sdn. Bhd. | 0 | 0.73 | - | | | | 7 |
| 14. | Globechem Sdn. Bhd. | , made | 0.03 | - | | | | ~ |
| 15. | Nagase Sdn. 8hd. | * | 0 | - | - | No compress of a Community | | 20.00 |
| 16. | Kimia Pertama (M) Sdn. Bhd. | 24 | - | • | | no retranslated (cod- | | 16.72 |
| 17. | Contigencies* | 100.55 | -115.88 | | pa . | | | 336.00 |
| ······································ | | 17.13 | 31. 69 | 3.00 | 0 | 21.00 | 11.50 | 407.72 |

Note:

ST Chemicals Sdn. Bhd. (No. 8) has imported/used 29.64 metric tones in January 2004 out of the unused quota of 30.78 metric tones.

MALAYSIA ODS PHASE-OUT PROJECT: THE NATIONAL CFC PHASE-OUT PLAN (NCFCPPP)

1. INTRODUCTION

- 1.1 At the 35th Meeting of the Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol (ExCom) in December 2001, the Government of Malaysia, through the Department of Environment (DOE), has received a grant fund to implement the Malaysia National CFC Phase-out (NCFCPP) for the phased reduction and complete phase-out of the consumption of Annex A, Group I Chemicals (i.e. CFC); 1,1,1-TCA; and Carbon Tetrachloride (CTC) in the country. The Malaysia NCFCPP aims to reduce the negative impacts of the enterprises in light of the world trend and regulatory actions by applying a combination of regulations, monitoring and financial assistance and the program will be implemented through the World Bank.
- 1.2 The ExCom has agreed in principle that it will provide funds to support the activities on an annual basis if the Malaysia NCFCPP completes the phase-out of the consumption of CFC; 1,1,1 TCA; and CTC in the year 2010 and the maximum allowable consumption for CFC; 1,1,1-TCA; and CTC for the year 2003 are 1,566; 48; and 4.51 Ozone Depleting Potential metric tonnes (ODP mt) respectively. At the same time, the Government of Malaysia should ensure that the import control policy for ODS is in place and operational.

2. ANNOUNCEMENT OF IMPORT QUOTAS FOR CFCS FROM 2002-2010

The Government of Malaysia will announce import schedule for Annex A. Group I, chemicals for 2002-2010 within 12 months after funding for this national CFC phase out plan has been approved by the ExCom. No import licences will be given to new importers. The proposed annual quota will be

distributed among the 19 importers (that is existing importers at the time imports of CFC was frozen on 7 April 1994).

3. CRITERIA FOR FINANCIAL SUPPORT

The National CFC Phase out Plan employs a phase out strategy based on a combination of policy and regulatory support. The National phase out plan requires enterprise to be proactive and apply for funds based on rules and guidelines, consistent with MLF funding principles.

To attain participation from the industry, the national CFC phase out plan proposes to utilise various incentives structures, including financial and regulatory incentives, designed with the aim of ensuring permanent and sustainable reduction of CFC phase out.

The national CFC phase out plan covers a number of sectors and sub-sectors with different profiles. The National CFC phase out plan also sets specific milestones to be achieved before MLF funds can be provided to Malaysia.

4. PROCEDURES FOR INVESTMENT PROJECTS COMPLETED AND DISTRIBUTED.

The agreed implementation modalities for various sectors and sub-sectors are as follows:-

4.1 GRANT FUNDING BASED ON AVERAGE COST-EFFECTIVENESS
OF PREVIOUSLY MLF APPROVED PROJECTS FOR MALAYSIA OF
RESPECTIVE SECTOR AND SUB-SECTOR.

The following implementation and financing modalities will be applied to investment projects in the solvent (CFC-113,1,1,1-TCA), commercial refrigeration, and foam sectors.

- (a) Advertising and promotion of the MLF funding and CFC phase out program will be done through workshops, national newspaper and trade magazines. At these workshop, the project management unit (to be appointed by DOE) will provide training to enterprise on how to prepare projects proposals;
- (b) Enterprise that require technical assistance to identify suitable non-ODS alternatives, should submit their request to DOE.
- (c) All enterprise are invited to submit request for funding in line with the MLF guidelines. Priority will be given to the most cost-effective proposals.
- (d) Enterprises are required to submit their proposal before the end of 2003.
- (e) Funding priority should only be given to enterprise that were established before July 1995.
- (f) Each enterprise is required to provide detailed information regarding baseline situation and CFC consumption.

4.2 PARTIAL GRANT FINANCING FOR PURCHASING OF RERIGERATION AND MAC SERVICING TOOLS AND MAC R&R MACHINES

This financing modality will be applied to all refrigeration and MAC service shops and partial grant funding approach will be employed. For those who participate early, a higher subsidy level will be provided to assist them in purchasing service tools for proper maintenance of CFC-12 and non-CFC refrigerators and MACs, and MAC recovery and recycling machines.

(a) The project management team will undertake a selection process to identify qualified suppliers for providing service tools and MAC recovery

- and recycling machines.
- (b) To qualify for financial assistance, service shops must have at least one of their technicians trained and certified at one of the training centres authorized by DOE. DOE will include names of certified technicians and service shops that they associate with into DOE's database.
- (c) Financial assistance should only be given to certified technicians.

4.3 FULL GRANT FINANCING FOR TECHNICAL ASSISTANCE AND CAPACITY BUILDING COMPONENTS

This financing modality will be applied technical assistance components, capacity building components, such as train-the-trainer programs, technical capacity building for vehicle inspection-stations. Customs training and other activities.

4.4 OBSERVATION

It is to be noted that paragraph 3, 4, 4.1, 4.2 and 4.3 were extracted from Malaysian National CFC Phaseout Plan (NCFCP) 2002-2010 dated July 2003.

5. PROCEDURES FOR AUDITING

- 5.1 Verification Of Process For Issuing Of Imports Quota For The Year 2003
- 5.1.1 Audit examination on the process and controls of issuing import quota by MITI for the year 2003 were carried out and the following were noted:
 - Prior to the issuance of the quota for the year 2003, the Industry Services Division (ISD) of MITI requested for confirmation on the Malaysia NCFCPP for the year 2002 to 2010 from DOE (MITI's

letter reference MITI:ID/ BDI/E(S) 664/22 Jld. 2 dated 12 June 2003). That was to ensure any latest amendments regarding allowable consumption level for Malaysia under the Montreal Protocol will be taken into consideration before decisions are made on the quota for the year 2003.

- Quota for each importer was correctly tabulated and all importers notified of their quota by 17 December 2002.
- iii. The register/ledger to control the issuance of AP was maintained properly by TSD and up to date. Supervising officers has carried out regular checks on the register.
- iv. Importers had submitted their report on actual imports of ODS for the year to ISD.
- v. The report on the import of ODS for the year 2003 has been prepared and submitted to OOE.
- 5.1.2 From audit examinations, we are satisfied that MITI has proper controls and adhered to the procedures of issuing import quota and approval of the application import licence.

5.2 Verification Of Quotas Issued To Importers

- 5.2.1 Verifications of quotas issued to the following 5 importers were carried out :
 - ST Chemicals Sdn. Bhd.
 - ii. Daichem Enterprise (M) Sdn. Bhd.
 - iii. Aurora Chemicals Sdn. Bhd.
 - iv. Westech (M) Sdn. Bhd.
 - v. Keylargo (M) Sdn. Bhd.

5.2.2 As a result of audit verification, the following were noted:

i. The quota for each importer was correctly computed and recorded in the register, with the exception to Daichem Enterprise (M) Sdn. Bhd. and Westech (M) Sdn. Bhd. Statement of CFC 12 Import Quota for the year 2003 (MITI's Statement) differs greatly from Importers Declaration Form as appended below:

| Importer | MITI Statement (mt) | Importer Declaration Form (mt) | Difference between MITI Statement and Importer Declaration Form (mt) |
|--------------------------|---------------------|---|---|
| Daichem Ent. (M) Sdn. | 74.00 | 89.488 | 15.488 |
| Westech (M) Sdn. Bhd. | 289.432 | 305.072 | 15.64 |

- All additional quota or transfer of quota were approved by the ISD and duly recorded in the register.
- iii. Total quantities in AP approved by TSD for each importer do not exceed the importers's yearly quota.

5.3 Verification Of Customs' Records And Documentation From Importers

5.3.1 The import of ODS by 5 importers as mentioned in paragraph 5.2.1 were verified to Customs' record and importers' documentation. Supporting documents verified are as follows:

i. ST Chemicals Sdn. Bhd.

| No. | Туре | of Supporting Doc | ument Verified | Type of | Quantity | |
|-----|----------------------|-------------------|--------------------|--|----------|--|
| | Declaration No. | Invoice No. | Bill of Lading No. | Controlled Substance | (mt) | |
| 1. | B10101013886 | D-SC-011778 | ICMUM 05148 | CFC 12 | 7.4800 | |
| 2. | BI0I02005430 | D-Sc-011907 | SSLMUM00448 | CFC 12 | 7.4800 | |
| 3. | BI8102002653 | 3880 | 1450-4148-301.023 | CFC 12 | 14.9600 | |
| 4. | B18103002220 | 3896 | 1450-4148-302.020 | CFC 12 | 14.9600 | |
| 5. | B18103002221 | 3895 | 1450-4148-302.021 | CFC 12 | 11.5700 | |
| 6. | B10104005296 | 3935 | MCS09060 | CFC 12 | 14.9600 | |
| 7. | B 10105033448 | 3995 | MCS09298 | CFC 12 | 14.9600 | |
| 8. | B18108005216 | 4076 | 1450-4148-307.025 | CFC 12 | 11.5700 | |
| 9. | B10109005320 | IK- | KKLUSH8907744A | CFC 12 | 31,2800 | |
| | reactionation access | E920802/STC | | | | |
| | | TOTAL QUANT | ITY (CFC - 12) | and the second s | 129.22 | |

ii. Daichem Enterprise (M) Sdn. Bhd.

| No. | Type o | f Supporting Docum | ent Verified | Type of | |
|---------------|--|--------------------|--------------------|-------------------------|------------------|
| | Declaration No. | Invoice No. | Bill of Lading No. | Controlled Substance | Quantity (mt) |
| 1. | B10103014509 | 1253-1254/2556 | SSLUMUM01090 | CFC 11 | 9.0000 |
| 2. | B1810501140 | EX/FCD/5028 | APLU054183688 | CFC 11 | 19, 0400 |
| 3, | B1810800780 | CS3f030181 | KMTCSHA765251 | CFC 11 | 18. 0000 |
| 4. | B1011201755 | EX/FCD/5272 | MISCDEL00004772 | CFC 11 | 13. 7000 |
| . | \$ | TOTAL QUANTIT | TY (CFC 11) | | 59. 7400 |
| 5. | B10104016763 | CS3F03048 | UNICB3128491 | CFC 12 | 15.6400 |
| 6. | B 10105003320 | 092/2028/03-04 | SSLMUM01635 | CFC 12 | 15. 6400 |
| 7. | B 10106003356 | 23WZHQ231 | KMTCSHA310989 | CFC 12 | 15. 5040 |
| 8. | B18109010981 | 23WZQ403 | KMTCSHA768298 | CFC 12 | 13.6000 |
| | B1010035572 | 23WHQ439 | KMTCSHA320377 | CFC 12 | 13.60 00 |
| 9. | B18102001120 | CSF04001 | KMTCSHA779002 | CFC 12 | 15.5040 |
| | and the second s | TOTAL QUANTIT | TY (CFC 12) | | 89. 4880 |

iii. Aurora chemicals Sdn. Bhd.

| No. | Type of S | Type of Controlled | Quantity (mt) | | | |
|-------------------------|---|--------------------|--------------------|---------------------|----------|--|
| | Declaration No. | Invoice No. | Bill of Lading No. | Substance | (any | |
| 1, | B10102009282 | 985-987/2432 | SSLMUM00601 | CFC 11 | 4.5000 | |
| TOTAL QUANTITY (CFC 11) | | | | | | |
| 2. | B18111010637 | JN03CFC173 | 00LU84801890 | CFC 12 | 4,1200 | |
| 3. | B18111004671 JN03CFC172 00LU84800600 CFC 12 | | | | | |
| 4. | B10102009281 | 985-987/2432 | SSLUMUM00601 | CFC 12 | 4.0800 | |
| | : | OTAL QUANTITY | ' (CFC 12) | and Language Street | 15. 4904 | |

iv. Westech (M) Sdn. Bhd.

| No. | Type of Supporting Document Verified | | | Type of | Quantity | |
|-----|---|-----------------|--------------------|-------------------------|----------|--|
| | Declaration No. | Invoice No. | Bill of lading No. | controlled Substance | (mt) | |
| 1 | B10105013748 | WES/REF/0035 | KKLUBOM00902 | CFC 11 | 9.2000 | |
| | | TOTAL QUANT | ITY (CFC 11) | | 9.2000 | |
| 2 | B18102006915 | 200000/03 | GOAA066664 | CFC 12 | 14.2800 | |
| 3 | B10104001313 WES/REF/0301 KKLUBOM008798 | | KKLUBOM008798 | CFC 12 | 15.7760 | |
| 4 | B10103030668 | ARCQ10303 | MISCSHA000009026 | CFC 12 | 15.6400 | |
| 5 | B10102009796 | 1069/2470/02-03 | SSLMUM00603 | CFC 12 | 16.3200 | |
| 6 | B18104005954 | n. 200987 | ANLU39100540 | CFC 12 | 12.9200 | |
| 7 | B10104019098 | WES/REF/0313 | NHS/PKL/GL/0905 | CFC 12 | 20.0000 | |
| 8 | B10105003590 | 12428 | SIN-304190-PKL | CFC 12 | 14.9600 | |
| 9 | B18105002270 | 23WZHQ175 | KMTCSHA756007 | CFC 12 | 15.5040 | |
| 10 | B18106000700 | 00011302 | CMAFF6618876 | CFC 12 | 15.6400 | |
| 11 | B18106000700 | 00011302 | CMAFF6618876 | CFC 12 | 15.6400 | |
| 12 | 810105031722 | WES/REF/0056 | KKLUBOM010289 | CFC 12 | 20.0000 | |
| 13 | 810107002428 | 12509 | SBN-306219-PKL | CFC 12 | 14.9600 | |
| 14 | B18106009739 | ARCQ12283 | CMAMEXFF14214 | CFC 12 | 31.2800 | |
| 15 | 810108001597 | ARCQ12673 | HASLNM70D737L14 | CFC 12 | 15.6400 | |
| 16 | 810107027850 | 23WZHQ324 | SHAPKL345425 | CFC 12 | 15.5040 | |
| 17 | B10108034561 | WES/REF/0145 | NHS/PKL/GL/1437 | CFC 12 | 20,0000 | |
| 18 | B10111031843 | 23WZHQ370 | SHAPKL351206 | CFC 12 | 15.5040 | |
| 19 | B10112023204 | 23WZHQ527 | SHAPKL330495 | CFC 12 | 15.5040 | |
| | The same transmitted | TOTAL QUANT | TTY (CFC 12) | | 305.0720 | |

vi. Keylargo (M) Sdn. Bhd.

| No. | Туре | Type of | Quantity | | |
|---|---|-------------|-----------------------|--|----------|
| | Declaration No. | Invoice No. | Bill of Lading No. | Controlled Substance | (mt) |
| 1 | B18108010062 | EX/FCD/5141 | 054185157 | CFC 11 | 14.9400 |
| n units , comment | ; ************************************ | TOTAL QUAN | NTITY (CFC 11) | | 14.9400 |
| 2 | B10112015102 | EX/FCD/5307 | MISCDEL000004942 | CFC 12 | 14.9600 |
| 3 | B10104021897 | 18493 | KKLUSH8906160 | CFC 12 | 15.6400 |
| 4 | 810112015101 | EX/FCD/5301 | MISCDEL000004923 | CFC 12 | 15.6400 |
| 5 | B10109025279 | 19563 | KKLUSH8907858 | CFC 12 | 15.6400 |
| 6 | B10108005428 | 19239 | KKLUSH89047414 | CFC 12 | 14.2800 |
| 7 | B108027826 | 19376 | KKLUSH8907582 | CFC 12 | 15.6400 |
| 8 | B105015751 | EX/FCD/4987 | RUSSAD/0724 | /SSAD/0724 CFC 12 | |
| 9 | B18106003174 | 20031836 | SHASOLD061 CFC 12 | | 15.6400 |
| 10 | B1810501199 8 | EX/FCD/5033 | APLU 054183711 | CFC 12 | 31.2800 |
| 1040 - 1 140 - 1140 - | | TOTAL QUA | _ NTITY (CFC 11) | and the second section of the second section of the second section of the second second second section of the second second section of the second second second section of the second second section of the second second section of the section o | 170.0000 |

5.4 Verification Of Department Of Statistics Record

5.4.1 Department of Statistics will key in (or down load) data from Customs record and a monthly report produced for submission to DOE. Basing on the report, DOE prepares data on imports using Data form 1 (UNEP/OZI.Pro/Dataform97). However there are discrepancies between total imports of ODS from reports by MITI and Department of Statistics. The discrepancies are shown below:

| Type of Controlled | Quantities Imported For The Year 2003 | | | | | | |
|--------------------|---------------------------------------|------------------------|----------------------|--|--|--|--|
| Substance | Department of Statistics record (kgs) | MiTI's record (kgs) | Oifferences (kgs) | | | | |
| CTC | Ō | 0 | <u> </u> | | | | |
| 1,1,1-TCA | 114,361.40 | 69,280,00 | 45,081 <u>,40</u> | | | | |
| ĊFC 11 | 133,450.00 | 209,760.00 | (76,310.00) | | | | |
| CFC 12 | 1,040,930.20 | 1,224,118.60 | (183,188.40) | | | | |
| CFC 113 | 0 | 0 | 20.00 | | | | |
| CFC 114 & CFC 115 | 0 | 0 | 0 | | | | |

- 5.4.2 Possible reasons for the discrepancies could be explained when audit verifications were carried out to ensure imports of ODS by the same 5 importers (paragraph 5.2.1) are correctly taken up in the Department of Statistics record. Two computer print-outs were provided by Department of Statistics for checkings. One was the record of manual data entries and the other, the down load of Customs computerized data. Audit verifications of Department of Statistics record revealed the following:
 - 8 imports totaling 108.5640 metric tonnes were not captured in the Department of Statistics record. They are as follows:

| No. | Importer | Declaration Form No. | Type of CDS | Quantity (mt) | |
|------------|----------------------------------|----------------------|-------------|------------------|--|
| 1 | Daichem Enterorise (M) Sdn. Bhd. | B10103014509 | CFC 11 | 9.0000 | |
| - <u>:</u> | Daichem Enterprise (M) Sdn. Bhd. | B10110035572 | CFC 12 | 13.6000 | |
| 3 | Daichem Enterprise (M) Sdn. Bhd. | B18102001120 | CFC 12 | 15,5040 | |
| 4 | Aurora Chemicals Sdn. 8hd. | 810102009282 | CFC 11 | 4,5000 | |
| 5 | Aurora Chemicals Sdn. 8hd. | B10102009281 | CFC 12 | 4.0800 | |
| -6 | Westech (M) Sdn. Bhd. | B10105003590 | CFC 12 | 14,9600 | |
| 7 | Keylargo (M) Scn. Bhd. | B:8106003174 | CFC 12 | 15.6400 | |
| _ <u></u> | Keylargo (M) Son. Bhd. | B18105011998 | CFC 12 | 31.2800 | |
| | Total Qu | | | 108,5640 | |

ii) 5 imports totaling 69.234 metric tonnes was not appear in the monthly report but it was only captured by Department of Statistics in the finalizing report 2003. They are as follows:

| No. | Importer | Declaration Form No. | Type of CDS | Quantity (mt) |
|-----|-------------------------------------|----------------------|-------------|------------------|
| 1 | Westech (M) Sdn. Bhd. | B18104005954 | CFC 12 | 12.9200 |
| 2 | Westech (M) Sdn. Bhd. | B18105002270 | CFC 12 | 15.5040 |
| 3 | Westech (M) Sdn. Bhd. | B10108001597 | CFC 12 | 15.6400 |
| 4 | ST Chemicals Sdn. Bhd. | B18108005216 | CFC 12 | 11.5700 |
| 5 | Daichem Enterprise (M) Sdn. Bhd. | B 18109010981 | CFC 12 | 13.6000 |
| | Total Qua | intity | | 69.2340 |

- iii) An import of 9.20 metric tonnes of CFC 11 by Westech (M) Sdn. 8hd. via Import Declaration form B10105013748 was erroneously captured by Department of Statistics as 3.60 metric tones.
- iv) An import of 31.28 metric tones of CFC 12 by ST Chemicals Sdn. Bhd. via Import Declaration form B10109005320 was erroneously captured by Department of Statistics as 15.64 metric tonnes.
- v) Audit checks on company files that import 1,1,1 -TCA kept in MITI reveals Kimia Pertama (M) Sdn. Bhd. via Import Declaration form B1010102660 purchased 19.76 metric tonnes in November 2002, but arrived in January 2003. This amount is reflected in Statistics's record but not in MITI's Statement
- 5.4.3 From the above audit examinations, we are of the opinion that DOE should not use secondary data from Department of Statistics report alone without verifications. As the monitoring agency, DOE should reconcile total quantities imported as reported by Department of Statistics and MITI. Further investigations should then be carried out for any discrepancy.

Name of the Importers

| No | Name of Importers | Type of Chemical Imported | | | | | | | |
|----------|-------------------------------------|---|--|--|--|---|--|----------|--|
| | • | | CFC | CFC | CFC- | CFC | 1,1,1- | CT | |
| | | -11 | -12 | -113 | 114 | -115 | TCA | C | |
| j | Chemquest Trading (M) Sdn. Bhd | | X | The state of the s | BE | *************************************** | - | - | |
| 2 | Texearrier Industries Sdn. Bhd. | х | х | - The state of the | and the second s | - | * | SR. | |
| 3 | Cosmo Polyurethane | anne general e con estado de de Servicio de Constante de Constante de Constante de Constante de Constante de Co | | - | * | | - | - | |
| 4 | Unigas (M) Sdn. Bhd. | x | X | * | - | - | - | <u>.</u> | |
| <u> </u> | Carto Sdn. Bhd. | * | * | - | - | | • | - | |
| 6 | Westech (M) Sdn. Bhd. | х | X | - | - | - | - | 4 | |
| 7 | CCM Chemicals Sdn. Bhd. | Х | | - | <u>.</u> | * | _ | <u>-</u> | |
| 8 | Keylargo (M) Sdn. Bhd. | х | X | # | - | - | - | 4 | |
| 9 | Daichem Enterprise (M) Sdn. Bhd. | X | X | * | - | - | - | - | |
| 10 | Nagase (M) Sdn. Bhd. | * | X | - | • | • | • | - | |
| 11 | E.P.O Corporation sdn. Bhd. | - | 1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 | E. | • | - | - | - | |
| 12 | ST Chemicals Sdn. Bhd. | Secure Secure | Х | <u>H</u> | + | - | - | <u>-</u> | |
| 13 | Jemco Sdn. Bhd. | * | | - | _ | * | - | - | |
| 14 | Tesway (M) Sdn. Bhd. | - | Х | ** | - | - | - | * | |
| 15 | Perusahaan Kimia Gemilang Sdn. Bhd. | X | X | | * | * | X | • | |
| 16 | Sing Swee Bee Sdn. Bhd. | x | X | T. | - | _ | | * | |
| 17 | Globecherm Sdn. Bhd. | * | х | - | | • | - | - | |
| 18 | Kimia Pertama (M) Sdn. Bhd. | - | | * | - | - | X | • | |
| 19 | Aurora Chemicals Sdn. Bhd. | X | Х | · De la Village de constitue | • | * | ALL DESCRIPTION OF THE PROPERTY OF THE PROPERT | - | |