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EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL Forty-fourth Meeting Prague, 29 November-3 December 2004

PROJECT PROPOSAL: BAHAMAS

This document consists of the comments and recommendation of the Fund Secretariat on the following project proposal:

Phase out

• Terminal phase-out management plan: 2004-2005 annual programme

World Bank

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS COUNTRY: THE BAHAMAS

PROJECT TITLE IMPLEMENTING AGENCY

Terminal phase-out management plan:	2004-2005 annual programme	World Bank

NATIONAL CO-ORDINATING AGENCY:

The Bahamas Environment, Science and Technology (BEST) Commission

CURRENT YEAR BUSINESS PLAN: Not included

PROJI	ECT DATA	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total**
	Montreal Protocol limits	64.9	64.9	64.9	64.9	32.45	32.45	9.735	9.735	9.735	0	66
CFC (ODS	Data reported under Article 7	63	55	24.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
tonnes)	Data reported under this agreement	n/a	29.88	29.62	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Annual consumption limit under this agreement	66	58	48	36	25	14	0	0	0	0	66
	Annual phase- out newly addressed	n/a	8	10	12	11	11	14	0	0	0	66
CONSI	TOTAL ODS UMPTION TO BE PHASED OUT	n/a	8	10	12	11	11	14	0	0	0	66
Project	costs (US \$) as a	pproved in p	orinciple (N	Multiyear A	greement)							
Funding	for World Bank	240,000		200,000		120,000						560,000
Bank	cost for World	31,200		26,000		15,600						72,800
	COST TO LATERAL FUND	271,200		226,000		135,600						632,800
Project	costs (US \$) appr	roved / requ	ested:			_'						
Funding	for World Bank	240,000			200,000	n/a						n/a
Support of Bank	cost for World	31,200			26,000	n/a						n/a
	COST TO LATERAL FUND	271,200			226,000	n/a						n/a
Project co (US \$/kg	ost effectiveness										US \$8	3.23/kg ODP

^(**) Totals include consumption and phase out from 2001 to 2009.

FUNDING REQUEST: Approval of tranche for Biennial Action Programme 2004/2005 plus support costs for delayed second tranche

SECRETARIAT'S	For individual consideration
RECOMMENDATION	For individual consideration

PROJECT DESCRIPTION

- 1. On behalf of the Government of the Bahamas, the World Bank has submitted to the 44th Meeting of the Executive Committee a request for the second tranche of the Terminal Phase-out Management Plan (TPMP) for the Bahamas. The request was accompanied by the 2004 2005 Biennial Action Programme and the 2001-2003 Progress Report. The Bahamas has a CFC baseline consumption of 64.90 ODP tonnes.
- 2. The Agreement for the Terminal CFC Phase-Out Management Plan for the Bahamas was originally approved at the 35th Meeting of the Executive Committee in 2001, with an associated level of funding of US \$560,000. Through this Plan, the Government of Bahamas requested technical assistance to achieve a complete phase out of its ODS consumption by the end of 2007, from a consumption level of 66 ODP tonnes in 2000. The TPMP foresees three funding tranches, one upon approval and afterwards every second year until 2005. The World Bank submitted a request for funding only in 2004 due to delays in the implementation of the TPMP, which were caused by changes in the Government's administration after an election in 2002.
- 3. According to the data reported by the Bahamas under Article 7 of the Montreal Protocol, as well as the data reported by the World Bank, the Bahamas have fulfilled the quantitative reduction targets specified in the above agreement for the years 2002 and 2003.
- 4. The Biannual Programme for 2004 and 2005, submitted with the request, foresees a number of activities. This includes a bill on controlled substances that will allow the establishment of official import restriction on ODS. Other activities include the introduction of import quotas, implementation of a system for documenting exports of CFCs to other countries, and undertaking an assessment of the refrigeration sector.
- 5. Recovery and recycling units imported by the World Bank under the 2002-2003 Biannual Programme have not been distributed because specific needs have not yet been identified. In conjunction with the Refrigeration Association, a CFC recycling and recovery programme will be initiated in 2005. Starting in 2005, training will be decentralized. Additional training equipment will be provided such that training of refrigeration technicians can continue. A Government-sponsored certification programme will be promoted, through which technicians that have passed refrigeration training courses will become certified. Refresher training programmes for local Customs Agents, the Fire Department and the Royal Bahamas Police Force agents will be undertaken. Public awareness programmes will continue.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

6. The Agreement for the Terminal CFC Phase-Out Management Plan for the Bahamas specifies consumption targets for every single year. In the agreement, the Government of the Bahamas specifically agreed to ensure accurate monitoring of the phase-out. Further, the

Government agreed to provide regular reports, as required by its obligations under the Montreal Protocol and this Agreement. The Agreement specifies that consumption figures provided under it will be consistent with the Bahamas reports to the Ozone Secretariat under Article 7.

- 7. The reporting of consumption, as well its verification, is presently being performed on the basis of voluntary agreements between the Ozone Office and industry, with a consistency check of the Customs Department database. Although the Customs Department has specific codes for ODS, according to the World Bank errors in recording imports have been consistently found in the past, placing in doubt the reliability of the Customs Department figures. Data received on the basis of the voluntary agreements with industry is therefore deemed by the World Bank to be more reliable than data from the Customs Department. The World Bank indicated that additional customs training courses have already been planned for 2005 and beyond, if the need arises, to remedy this problem.
- 8. A licensing system for ODS imports has been prepared, but has not yet been put in place. The project document foresaw the signing of an ODS import control system in 2001. The World Bank indicated, in response to the Secretariat, the likely date of entry into force for such legislation should be the end of 2004.
- 9. The data reported for the past two years by the Bahamas under Article 7 of the Montreal Protocol and by the World Bank as part of the reporting under this agreement is shown in the following table:

Year	2002 [ODP tonnes]	2003 [ODP tonnes]
Maximum allowable Annex A, Group I Consumption according to TPMP	58.00	48.00
Data reported under Article 7	55.00	24.60
Data reported by the World Bank; verified for 2003	29.88	29.62

10. For both years of reporting, the data reported by the World Bank deviates significantly from the reports submitted by the Bahamas under Article 7, although both sets are below the maximum allowable consumption for both years. In response to a communication by the Secretariat, the World Bank explained that they are aware of the discrepancies and have made efforts to remedy them. The World Bank was not in the position to provide a 2002 CFC Consumption Verification Report, but advised that it will be available shortly. This report is in addition meant to clarify potential reporting discrepancies in 2002. According to the World Bank, 2003 reporting discrepancies were caused by miscommunication between Government offices, and it is understood that the Bahamas have already initiated the process of revising their reporting under Article 7.

- 11. The Bahamas had complied with the consumption provisions of the Agreement, but have failed to comply with a number of other provisions. The Bahamas did not comply with the requirement for consistency between verified data under this agreement and reported data under Article 7 of the Montreal Protocol. While the Secretariat received a verification report for 2003, the report for the previous year is still outstanding. In addition, the reporting is based on voluntary agreements with a number of enterprises, which does not provide the same confidence level as would official import data collected at all ports.
- 12. Based on the issues mentioned above, the Secretariat is not in the position to recommend the "Bahamas TPMP Biennial Action Programme 2004-2005" for blanket approval. The Executive Committee might wish to consider the option of approving the project at the level requested, but with a deferral of the disbursement of the biennial tranche for 2004-2005 until the consumption data for 2002 and 2003 has been verified and is consistent with Article 7 data.

RECOMMENDATION

13. The Executive Committee might want to consider the project in light of the comments provided above.

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BAHAMAS Terminal Phaseout Management Plan (TPMP)

Biennial Action Program 2004 - 2005 & PROGRESS REPORT 2001-2003

Prepared by:

BEST Commission and the National Ozone Unit Ministry of Health and Environment The Bahamas

September 2004

1.0 DATA

Country	Bahamas
Year of plan	2004 - 2005
No. of years completed	3
No. of years remaining under the TPMP	5
Target ODS Consumption of the preceding year (2003)	48 ODP MT of Annex A, Group I Chemicals (CFCs)
<u>Total</u>	48 ODP MT
Target ODS Consumption for 2004 and 2005	2004: 36 ODP MT of Annex A, Group I Chemicals (CFCs)
	2005: 25 ODP MT of Annex A, Group I Chemicals (CFCs)
Total ODS	36 ODP MT in 2004
	25 ODP MT in 2005
Total funding approved in principle	USD 560,000
Total funding release by September 2004	USD 240,000
Level of funding requested	USD \$200,000
Lead implementing agency	The World Bank
Co-operating agencies	Nil

Introduction

1. In accordance with the Executive Committee's approval of the "The Bahamas National CFC Phaseout Plan" (Decision 35/52), The Bahamas is hereby requesting the release of the second tranche of US \$200,000 for the implementation of its 2204-2005 Biennial Action Program. After implementing this program, The Bahamas' CFC consumption will be reduced to: i) a maximum of 36 ODP tonnes by the end of 2004; and ii) a maximum of 25 ODP tonnes by the end of 2005. Details of the 2004-2005 Biennial Action 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 \$560,000 in funding for the phased reduction and complete phase-out of consumption of Annex A, Group I chemicals in The Bahamas. 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, The Bahamas has taken important steps towards the implementation of the Plan. Details of 2001-2003 activities and developments to date are found in Part I.

Table 1: Approved MLF Funding and ODP Reduction Schedule

Year	Annual Grant Funding US \$ (thousands)	Maximum allowable Annex Group 1 consumption (ODP tones)	
		CFC	Total ODS
2001	240	66	66
2002		58	58
2003	200	48	48
2004		36	36
2005	120	25	25
2006		14	14
2007		0	0
2008		0	0
2009		0	0

PART I 2001-2003 PROGRAM ACCOMPLISHMENTS

1. TARGETS MET

4. The maximum allowable consumption target to be reached in 2003 was 48 ODP tonnes, corresponding to a reduction of 10 ODP tonnes from 2002.

- 5. The 2002 verification report indicated that total imports of CFC in 2002 amounted to 29.88 ODP tonnes, well below the maximum allowable consumption for that year.
- 6. A 2003 verification report, included in Annex 1, has indicated that CFC imports in 2003 amounted to 29.62 ODP tonnes. A summary of the findings of that report are included in Table 2. The Bahamas has met its 2003 reduction targets and is well on its way to meeting its 2004 and 2005 reduction commitments.

All data in ODP Tonnes	CFCs
Maximum allowable consumption in 2003	48
Actual imports of CFC in 2003 (CFC-12)	29.62

Table 2: Consumption of CFCs in 2003

2. SUMMARY OF GOVERNMENT ACTIONS

2.1 ODS Regulations

Import Registration and Quota Procedures

- 7. The National Ozone Steering Committee (NOSC) was established in late 2002, and includes members from the Ozone Office, Customs Department, the refrigeration, hotel, and fisheries associations, and other stakeholders. The NOSC meets once every month to discuss issues related to the implementation of the TPMP and with the overall phaseout of CFCs.
- 8. In early 2003 the NOSC, with assistance form the Attorney General Office, drafted legislation for the establishment of a licensing system for the import and export of ODS and the banning of imports of ODS-using equipment. The legislation is at the last stage of approval by Parliament, and it is expected to be approved by the end of 2004. Once approved the legislation will be signed by the Governor General. Once signed, the legislation will become law.
- 9. Since 2001, however, a system a voluntary quotas has been set up between CFC importers and the Government of the Bahamas (GOB), which has allowed to maintain consumption of CFCs in the country within the target levels of the agreement with the Executive Committee.

Voluntary Quotas for Importers

10. At the onset of implementation of the TPMP, the Government met with the largest CFC importers, representatives from refrigeration associations and other stakeholders and agreed on national reductions of CFC consumption, in line the Montreal Protocol targets. Importers signed letters of commitment with the Government, in which they confirmed their support to the Government's plan and agreed to the reduction targets. Importers have, to

this date, held their commitment, which has meant that the GOB has been in compliance with the Protocol.

11. All importers of CFCs must be registered with the Ozone Office, which controls that import licenses submitted by importers remain within their voluntary accepted limits, and that the national consumption remains below the maximum allowable levels.

SUMMARY OF INDUSTRY ACTIONS

3.1 MAC Sector Phaseout

- 12. The strategy initially proposed to phase out the use of CFCs in the MAC sector has been modified since the start of implementation of the TPMP, in order to adapt to the consumption patterns in the Bahamas, and therefore to the decreasing demand for CFC-12 in the sector. For instance, the retrofitting program that was originally proposed has not yet been implemented, due to the lack of demand for retrofitted vehicles. A corrosive environment, and an overall culture of replacing old vehicles for new ones at a relatively fast rate, results in the fact that the majority of vehicles currently on the road in the Bahamas is less than ten years old. Existing policies related to the ability to finance the purchase, or to find insurance for old cars, further dissuade buyers from acquiring them (see below). Since older vehicles are the only type of vehicles in the Bahamas that would require retrofitted MAC units, the retrofit program has not been given priority by the GOB. The average year of manufacture of the vehicle pool in the Bahamas is increasing steadily, and therefore the impact of a retrofitting program will be re-evaluated.
- 13. A recycling program conducted under the Refrigerant Management Program for the Bahamas, funded by UNEP, included the distribution of recycling machines to service shops. In addition, self-funded industry programs included the purchase of recycling equipment for various enterprises. The number of available recycling machines was, until recently, sufficient to satisfy the needs of the country, especially given the decreasing demand for CFC-12. While the GOB supported CFC recycling efforts through public awareness and training campaigns, no additional recycling equipment had been purchased under the TPMP.
- 14. A number of policies are in place in the Bahamas, which although not legally enforceable, are a disincentive to the use of ODS by the country's MAC sector. Examples of such policies include: i) ban on imports of cars older than eight years old, which limits the number of CFC-based MAC units in the market; ii) insurance restrictions placed on cars older than 10 years, which promotes the use of new cars, thus further decreasing the demand for CFC-12 for MACs; and iii) restrictions on bank loan for the purchase of cars older than four years.

3.2 Refrigeration Sector Phaseout

- 15. Similarly to the trends described for the MAC sector, the consumption of CFCs by the refrigeration sector in the Bahamas has decreased considerably since the onset of the TPMP. CFCs are no longer being consumed by fisheries or by the cold transportation sector, two sectors that were deemed critical to the success of the TPMP. The phaseout of CFCs in these sectors is due to a combination of the Government's public awareness campaigns, and to the industry's own effort to eliminate the use of these substances.
- 16. The action plan developed for the refrigeration sector has primarily focused on public awareness and training activities that have been put in place by the Government in support of the industry's programs. With regards to the use of CFCs in the domestic refrigeration sector, no CFC-based refrigerators are currently being imported into the Bahamas. Given

the patterns of consumption in the country, which are consistent to those observed in the automotive sector, the demand for old retrofitted domestic refrigerators or for recycled CFC for domestic use is not significant, at present, to justify a retrofitting program.

3. SUMMARY OF TECHNICAL ASSISTANCE ACTIVITIES

17. With the establishment of the NOSC also came the resurgence of the two refrigeration unions, both of which have representation on the NOSC. It is through the assistance of these sector representatives that a clear and cooperative approach to the TPMP is being achieved. It is through this interaction that most private business have reduced their level of imports, in accordance to their voluntary quota system.

4.1 Training for MAC and Refrigeration Sector Technicians

- 18. In conjunction with the Bahamas Technical Vocational Institute (BTVI) and the Commercial Refrigeration Association, the Government has put in place three training programs, which periodically offer training to technicians in the refrigeration sector. The programs include: i) complete refrigeration training for new technicians in the sector; ii) in-depth upgrade courses in refrigeration for experienced technicians; and iii) short training on management of CFC substitutes.
- 19. Course curricula and training manuals have been developed on the basis of those used by the Pennsylvania Technical Institute (PTI), which has an established program of collaboration with BTVI. Technicians are certified by both BTVI and the PTI upon completion of the course.

4.2 Customs training

- 20. Since 2001, three separate training and workshop programs have been implemented with representatives from Customs, Fire Department, Police, Private sector industry and local media.
- 21. In 2002, a Customs-ODS Training Manual was developed by international consultants. Custom officers from Abaco, Grand Bahama and Eleuthera islands were represented at the workshops.

4.3 Public Awareness

- 22. Under the directive of the BEST Commission, the Ozone Office and the NOSC, several programs have been implemented to enhance public awareness about the phase out of ODS in The Bahamas, and to formulate sector policies and prepare action plans for each activity. A brief description of the activities undertaken is provided below.
- 23. Every year since 2002, the Government has untaken various public education and awareness programs. In 2003, the Minister of Health addressed the country and provided an outline of the Government's policy and pending legislations regarding ODS imports into the country. Numerous radio programs and talk shows have been conducted along with public displays at the National Post Office and public Malls. The purpose of these activities is to disseminate information on legislations, strategies and overall Government policy, and their potential effects on relevant stakeholders. There has also been strong use of the Ozone Song which is played regularly by local radio stations during Ozone week.
- 24. Visits have been made to schools to educate and inform the students about the environmental impacts of ODS, about CFC-based equipment, and about the various uses

for the gases. During these visit students and faculty are informed about potential alternatives, as well as about pending policies and regulations.

4. PROJECT MANAGEMENT

25. All project management activities related to the TPMP are handled by the Bahamas Environment Science and Technology (BEST) Commission, under the Ministry of Health. All project implementation-related activities are handled by the Ozone Office, under the same Ministry.

5. BUDGET 2002-2003

Activity	Planned Expenditures in 2002 (USD)	Actual Expenditures in 2002 (USD)	Planned Expenditures in 2003 (USD)	Actual Expenditures in 2003 (USD)	Total Expenditures 2002-2003 (USD)
Government actions		18,967		42,839	61,806
MAC sector phaseout		32,491		54,516	87,007
Refrigeration sector phaseout		12,355		24,710	37,065
Technical Assistance		9,833		19,667	29,500
Project Management		6,142		10,617	16,759
TOTAL	130,000	91,725	110,000	140,413	232,137

PART II 2004-2005 Program

1. TARGETS

Table: National Targets

	Target (ODP Tons)				
Indicators		Preceding Year (2003)	First year of Biennial Plan (2004)	Reduction from previous year	Second year of Biennial Plan (2005)
Supply of	Max. allowable import	48	36	12	25
ODS	Actual imports (2003) or planned imports (2004,2005)	29.62	25	23	18
Demand of	Manufacturing	0	0	0	0
ODS projected	Servicing	29.62	25	4.62	18
in NCPP	Total	29.62	25	4.62	18

2. PLANNED GOVERNMENT ACTIONS

- 26. The Bill on controlled substances that will allow to establish official import restriction on ODS is expected to become a law by the end of 2004. Government efforts in 2005 will be focused on the implementation of the new law, and particularly on the establishment of import quotas. The Ozone Office will be the lead agency charged with the implementation of the law.
- 27. The Government will actively pursue the implementation of a system for documenting exports of CFCs to other countries (primarily the U.S., Cuba and Haiti). Undocumented exports of CFCs, which typically take place as vessels visit the Bahamas and purchase refrigerants, are currently not being discounted from national consumption figures. The Government has made considerable efforts to raise awareness on the importance of documenting those exports and will put in place a reporting system in early 2005.
- 28. An assessment of the refrigeration sector will be undertaken by the College of The Bahamas with the following objectives: a) to document the progress accomplished by the sector, to date, in phasing out CFCs; and b) to identify available transition technologies that will be helpful to small sector groups that may have difficulties in achieving a complete phaseout. Results of this assessment will later be used by the Government to design specific sector initiatives to assist the identified groups with their conversion.
- 29. In 2004, the Government commissioned international consultants to carry out an investigation of the recycling alternatives best suited for the Bahamas. Results from the study will be incorporated into initiatives planned for 2005 (see below).

3. PLANNED INDUSTRY ACTIONS

3.1 MAC and Refrigeration Sectors

30. In conjunction with the Refrigeration Association and with BTVI, a CFC recycling and recovery program will be initiated in 2005. Facilities at BTVI, including a CFC recovery tank acquired as part of the RMP that has not been used, will be upgraded. In addition, operators will be trained to recover refrigerant from MAC units as well as from refrigeration equipment. Technicians will be encouraged to take all recovered CFCs and old equipment containing CFCs, to the BTVI facility. The program will be advertised through the public awareness campaigns that the Government conducts, and through the training courses offered at BTVI.

4. PLANNED TECHNICAL ASSISTANCE ACTIVITIES

- 31. All training activities will be expanded to the Family Islands (Eleuthera, Abaco, Grand Bahama, etc.). Up to date, training courses had primarily been conducted in New Providence, and technicians from the Family Islands had been invited to participate in the activities. Starting in 2005, training will be decentralized.
- 32. Additional training equipment will be provided to BTVI such that training of refrigeration technicians can continue. Moreover, a Government-sponsored certification program will be promoted, through which technicians that have passed refrigeration training courses will become certified.
- 33. Refresher training programs for local Customs Agents, Fire Department and the Royal Bahamas Police Force agents will be undertaken.

4.1 Public Awareness

- 34. Public awareness programs will continue through radio, television and the local media. In addition, the Government will coordinate school visits and exhibits at public and business establishments (e.g. Central Post Office).
- 35. Development and update of public education material such as a national ODS handbook, public pamphlets and a short video that highlight regulations and licensing requirements.
- 36. The Bahamas Environmental Handbook will be updated and the National Ozone Calendar will be published and distributed around the islands.

5. PROJECT MANAGEMENT

37. Maintenance and support of the project management office will continue throughout the 2004-2005 period.

6. BUDGET FOR 2004-2005

Activity	Planned Expenditures in 2004 (USD)	Planned Expenditures in 2005 (USD)	Planned Expenditures 2004- 2005 (USD)
Government actions	15,000	15,000	30,000
MAC and refrigeration sectors phaseout	53,000	53,000	106,000
Technical Assistance	20,000	20,000	40,000
Project Management	12,000	12,000	24,000
TOTAL	100,000	100,000	200,000

ANNEX 1

THE BAHAMAS

2003 CFC Consumption Verification Report

Data collection performed by:

The College of the Bahamas Research Unit (COB/RU)

July 2004

1. INTRODUCTION

As part of the implementation of the Terminal CFC Phase-out Management Plan (TPMP) for the Bahamas, a verification of imports of CFCs in 2003 was undertaken by the College of the Bahamas Research Unit (COB/RU). A final report was submitted to the Bahamas Environment, Science and Technology (BEST) Commission on July 7, 2004. The following sections provide an overview of the methodology used in collecting the data and of the results obtained.

2. BACKGROUND

2.1 Regulatory framework and the TPMP

In 2000, the Bahamas reported a CFC consumption of 66 MT, roughly 12% greater than it freeze level target. In 2001, the TPMP was designed to bring the country back in compliance with the Montreal Protocol, by progressively reducing its CFC consumption, such that a complete phaseout was achieved by 2008. The consumption target set for 2003 was 48 ODP tonnes.

One of the first objectives of the TPMP was to promote the establishment of an import control system, based on a principle of yearly import quotas set by the relevant Government agencies. A quota system did not exist in the Bahamas at the time, due to the lack of a regulatory framework that allowed to impose such control on ODS imports. While the necessary legal instruments were developed and put in place, the Bahamas established a voluntary import licensing system in 2002. CFC importers agreed to: a) voluntarily report import data; b) reduce their imports of CFCs according to yearly levels determined by the Government; c) control sales to re-exporters; and d) convert to a mandatory quota system once it had been implemented by the Government. The Bahamas Ozone Office, within the Department of Environmental Health and Services of the Ministry of Health, is the agency that tracks imports of all substances controlled by the Montreal Protocol.

The Bill for an Act to give effect to the Montreal Protocol, which would legally allow to set up import quotas, has undergone two Parliament readings and is currently on its third and final round. The Bill is expected to pass the end of 2004, at which point the import licensing system for controlled substances will become a national law and will thus be legally binding to the importers.

2.2 National CFC consumption

CFC consumption, as per the Montreal Protocol definition, is taken as production plus imports minus exports. No CFCs are produced in the Bahamas. Although exports of previously imported CFCs are known to occur, there is currently no official mechanism to track them. These often occur as ships (typically from the US) stop in the islands to do maintenance to their MAC or to stock on CFC-12 supplies. An extensive public awareness campaign has been conducted in the Bahamas over the past four years, which has targeted, among others, the undocumented sale of CFCs to foreign vessels. US coastguards have also intensified their control on illegal imports of CFCs, and as result, the unofficial levels of exported CFCs from the Bahamas have decreased. However, since no official record exists of these sales, exports of CFCs are still being accounted for as national consumption.

All the CFC consumption in the Bahamas is in the refrigeration and air conditioning sectors, with over 90% of it in the MAC sector. A prior CFC consumption verification report conducted for the period from 1999 to 2002 indicated that a relatively small number of importers accounted for over 90% of the CFC imports. These companies import for wholesale and retail sale, in addition to their own uses. They typically sell to refrigeration servicing shops and MAC servicing and

repair workshops. There is a large number of very small companies that import CFCs on an irregular basis, mostly for specific jobs. Other smaller imports only place orders every other year, to avoid high shipping costs. As a result, a large number of importers are registered at the Ozone Office, but only a number of them imported CFCs in 2003, as will be shown in section 4.

3. METHODOLOGY

The verification process included the following steps:

- Obtaining a database of registered importers from the BEST Commission along with letters of presentation that explained the purpose of the verification process.
- Contacting all registered importers and obtaining information on: a) annual imports of CFCs; b) CFC suppliers; c) annual sales; d) amount exported, if applicable; and e) endof-year stocks.
- Most companies did not provide information on exported amounts or on end-of-year stocks. The following two conservative assumptions were thus made as results were compiled: a) all CFC imported in 2003 were sold during the year; and b) no unmonitored exports took place during 2003.
- Information provided by importers was cross-checked against import licenses received at the Ozone Office.
- Information provided by importers was cross-checked against suppliers records.
 Although not all suppliers provided detailed information on the orders made by each company, the largest suppliers provided detailed accounts of their shipments.
- The Customs Department database was checked for consistency.

4. RESULTS

Table 1 provides a list of the 24 importers of ODS to the Bahamas in 2003 and the amounts of CFC-12 they imported. Twelve of the companies listed did not import CFC-12 in 2003, but as they imported other controlled ODS substances and blends (e.g. R-502 and HCFCs), they are part of the voluntary import licensing system managed by the Ozone Office. Table 1 also provides the location of the companies and their suppliers.

Table 1. Imp	orters of ODS to the Bahamas in 2003
	CFC-

		CFC- 12		
Company name	Location	(MT)	%	CFC suppliers
Bahamas Welding and Fire Co.	,			
Ltd.	Nassau, NP	10.80	36.5	Galco S.A. (Belgium)
Taylor Industries, Ltd.	Nassau, NP	5.44	18.4	Harp International (UK)
Bay Street Garage Ltd.	Nassau, NP	4.29	14.5	Top Guard Corporation (US)
WHIM Automotive Ltd.	Nassau, NP	3.67	12.4	Top Guard Corporation (US)
Freeport Gases	Freeport, GB	2.80	9.5	Galco S.A. (Belgium)
FIA, Ltd.	Nassau, NP	0.82	2.8	Fidelity International (US)
Cartwright's Garage Ltd.	Nassau, NP	0.54	1.8	Hartwell International (US)
Associated Grocers of the				
Bahamas	Nassau, NP	0.41	1.4	Fidelity International (US)
Asa H. Pritchard	Nassau, NP	0.41	1.4	Fidelity International (US)

		050			
		CFC-			
_		12			
Company name	Location	(MT)	%	CFC suppliers	
Rolles Auto Parts and Accessories	Nassau, NP	0.20	0.7	ABI Auto Parts (US)	
Multi Auto Parts	Nassau, NP	0.20	0.7	Global Refrigerant (UK)	
Donnie's Electrical Abaco	Abaco	0.03	0.1	Tropical Supply (US)	
C & G Air Conditioning Co. Ltd.	Freeport, GB			Refricenter International (US)	
				Refricenter International	
Hill York Ltd.	Nassau, NP			(US)	
Bain Industries Ltd.	Freeport, GB			Pioneer Metal Inc. (US)	
Awez Air Conditioning	Nassau, NP			Pioneer Metal Inc. (US)	
Carter's Air Conditioning	Freeport, GB			E Air (US)	
The Refrigeration Centre	Nassau, NP			Pioneer Metal Inc. (US)	
	Marsh				
Marco Air Conditioning	Harbour			Arco Supply (US)	
Automotive and Industrial	NP, GB,				
Distributors Ltd.	Abaco			Refrigerants Inc. (US)	
Super Value Food Stores	Nassau, NP			Fidelity International (US)	
Bahamas Supply Air Conditioning					
Ltd.	Nassau, NP			CIAC (US), Coastline (US)	
Bahamas Super Market Limited	Freeport, GB			Hussman Corporation (US)	
Paradise Air Conditioning	Nassau, NP			E Air (US)	
Total		29.62	100		

A breakdown of CFC imported in 2003, by suppliers, is provided in Table 2.

Table 2. Suppliers of CFC-12 to the Bahamas in 2003

	CFC-12	
CFC-12 suppliers	(MT)	%
Galco S.A. (Belgium)	13.60	45.9
Top Guard Corporation (US)	7.97	26.9
Harp International (UK)	5.44	18.4
Fidelity International (US)	1.63	5.5
Hartwell International (US)	0.54	1.8
ABI Auto Parts (US)	0.20	0.7
Global Refrigerant (UK)	0.20	0.7
Tropical Supply (US)	0.03	0.1
Total	29.62	100.0

14

5. **CONCLUSIONS**

• The total amount of CFC-12 consumed in the Bahamas in 2003 was 29.62 ODP tonnes. This value is lower than the maximum allowed CFC consumption for the year, which was set at 48 ODP tonnes. Twelve companies imported CFC-12 in 2003. The largest importer, accounting for roughly 37% of all imports was Bahamas Welding and Fire Company, located in Nassau, in the island of New Providence.

• Eight companies supplied CFC-12 to the Bahamas during 2003. The largest supplier, Galco S.A., accounted for approximately 46% of the total amount.