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Executive Committee of
the Multilateral Fund for the
Implementation of the Montreal Protocol

Eighteenth Meeting
Vienna, 22-24 November 1995

PROJECT PROPOSAL: URUGUAY

This document includes the Comments and Recommendations from the Fund Secretariat on the following projects:

Halon

- Conversion of Production of H-1211 Fire Extinguishers at Tornay and Mori Fire Equipment Company UNDP
- Transfer of Technology on alternatives to H-1301 Systems and Conversion of Production of Halon 1211 Fire Extinguishers at Izeta Lopez Fire Equipment Company UNDP

Refrigeration

- CFC-12 Recovery, Recycling and Training in Refrigeration Maintenance and Repair. WORLD BANK

PROJECT EVALUATION SHEET URUGUAY

SECTOR: HALON ODS use in sector (1993): 9.5 ODP tonnes

Sub-sector cost-effectiveness threshold: US \$1.48/kg

Project Title : Halon Sector Programme* comprising:

- (a) Conversion of production of H-1211 fire extinguishers at “Tornay and Mori Fire Equipment Company”
- (b) Transfer of technology on alternatives to H-1301 Systems and conversion of production of halon 1211 fire extinguishers at “Izeta Lopez Fire Equipment Company”

Project Data		
	Tornay and Mori	Izeta Lopez
ODS phase-out (ODP tonnes)	2.4	2.7
Proposed project duration (Yrs)	6 months	3 months
Incremental capital cost (US\$)	40,000	45,000
Contingency (%)	0	0
Incremental operational cost (US\$)	2,540	-20,000
Total project cost (US\$)	37,460	25,000
Local ownership (%)	100	100
Export component (%)	00	0
Amount requested (US\$) ☐ Original	40,000	25,000
☐ Revised	40,000	25,000
Cost effectiveness (US\$/kg)		
National Coordinating Agency	COGO	COGO
Implementing Agency	UNDP	UNDP
Technical review completed?	Yes	Yes

<i>Secretariat's Recommendations</i>		
Amount recommended (US \$)	38,150	24,225
Project impact (ODP tonnes)	2.4	2.7
Cost effectiveness (US \$/kg)	15.90	8.97
Implementing Agency support cost (US\$)	4,960	3,149
Total cost to Multilateral Fund	43,110	27,374

*

New proposal to 18th Meeting.

PROJECT DESCRIPTION

- (a) Conversion of production of H-1211 fire extinguishers at “Tornay and Mori Fire Equipment Company”

1. This project covers the conversion of the production of portable halon fire extinguishers and includes payment for filling equipment for CO2 extinguishers and testing and certification of CO2 fire extinguishers. The company is presently producing ABC powder extinguishers, so that the production can be expanded without major investment. CO2 extinguishers will replace new sale of halon 1211 for a number of applications. To cover future servicing needs, CO2 filling equipment is required.

- (b) Transfer of technology on alternatives to Halon 1301 Systems and conversion of production of halon 1211 extinguishers at “Izeta Lopez Fire Equipment Company”

2. This project aims at (1) providing transfer of technology on alternatives to halon 1301 systems, and (2) stopping the production of portable H-1211 fire extinguishers.

3. Regarding the first objective, project activities include identification and evaluation of alternatives to halon 1301 systems, license agreements to enable Izeta Lopez to utilize some of them, and finally training of staff in design and installation of these systems. For the second objective, no capital costs are claimed -- the company is already equipped to produce alternative extinguishers -- but operational savings are deducted from the project total.

SECRETARIAT’S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. These two projects represent the phase out of both the halon fire-extinguisher sub-sector and the halon 1301 sub-sector in Uruguay. A halon banking proposal from Uruguay will complete the halon sector phase-out. The banking proposal will be considered once guidelines are established by the Executive Committee.

2. Both projects exceed the cost-effectiveness threshold for the halon sector. However, according to decision 17/11, Uruguay (1993 consumption 314.1 ODP) qualifies as a low-consuming country and these projects may be considered for funding under the resource allocation for such countries.

RECOMMENDATIONS

1. The Fund Secretariat recommends approval of the projects with associated support costs under the resource allocation for low-consuming countries at the funding level shown in the table below:

<u>Project</u>	<u>Project Cost</u> <u>US \$</u>	<u>Support Cost</u> <u>US \$</u>	<u>Implementing</u> <u>Agency</u>
(a) Conversion of production of H-1211 fire extinguishers at “Tornay and Mori Fire Equipment Company”	38,150	4,960	UNDP
(b) Transfer of technology on alternatives to H-1301 Systems and conversion of production of halon 1211 fire extinguishers at “Izeta Lopez Fire Equipment Company”	24,225	3,149	UNDP

2. To note that these projects represent the phase out of the halon fire extinguisher and the halon 1301 sub-sectors in Uruguay.

SECTOR: **REFRIGERATION** ODS use in sector (1991): 16.5 ODP tonnes
CFC RECOVERY AND RECYCLING (Industrial sub-sector)

Recovery and recycling of CFC-12 in maintenance workshops for industrial refrigeration equipment*

Project Data	Recovery and recycling
ODS phase-out (ODP tonnes)	3.5
Proposed project duration (Yrs)	6 months
Incremental capital cost (US \$)	90,275
Contingency (%)	10
Incremental operational cost (US \$)	-
Total project cost (US \$)	87,647
Local ownership (%)	-
Export component (%)	-
Amount requested (US \$) {Original	94,970
{Revised	90,275
Cost effectiveness (US \$/kg)	25.00
National Coordinating Agency	Governmental Ozone Technical Commission
Implementing Agency	The World Bank
Technical review completed?	Yes

<i>Secretariat's Recommendations</i>	
Amount recommended (US \$)	87,647
Project impact (ODP tonnes)	3.5
Cost effectiveness (US \$/kg)	25.00
Implementing Agency support cost (US \$)	11,394
Total cost to Multilateral Fund (US \$)	99,041

* New proposal to the 18th Meeting

PROJECT DESCRIPTION

1. Within the next year, the Government of Uruguay plans to enact legislation that will completely ban the use of CFC-12 and promote CFC recovery and recycling practices. In anticipation of these regulations, installers of new refrigeration and air conditioning systems have voluntarily stopped installing units that use CFC-12 refrigerant. Service shops are seeking training to enhance their ability to comply with the impending regulations.
2. The project will provide 15 refrigerant recovery and recycling machines to major industrial refrigeration service shops and training service technicians in the use of the equipment. Each service shop will retain ownership of the equipment to achieve the most effective recovery and recycling of CFCs. The recycling machines will also be used to service refrigeration systems at other facilities as needs arise.
3. The Government of Uruguay, represented by the Governmental Ozone Commission (COGO), will enter into an agreement with the service shops mandating the use of recovery and recycling equipment and keeping of records on the amount of CFC recovered and recycled; COGO will monitor and will compile periodic reports on the total amount of CFCs recovered and recycled.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. A CFC recovery and recycling programme in domestic and commercial refrigeration sub-sectors was approved by the Executive Committee at its 12th Meeting, to be implemented through UNDP. The project submitted to the 18th Meeting relates to the industrial refrigeration sub-sector, which has not, to date, received any assistance from the Fund. The World Bank is of the view that the proposed project will complement the approved one and, therefore, does not constitute double-counting.

RECOMMENDATION

1. The Fund Secretariat recommends approval of the project with associated support costs at the funding level shown in the table below:

Project	Project Cost US \$	Support Cost US \$	Implementing Agency
Recovery and recycling of CFC-12 in maintenance workshops for industrial refrigeration equipment	\$87,647	11,394	World Bank