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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 PROPOSALS: VIET NAM

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

• Conversion to CFC-free hydrocarbon aerosol propellant technology at Daso Co. Ltd.	UNDP
• Conversion to hydrocarbon aerosol propellant technology at Cosmetics Producing and Trading Company (CP & T)	UNDP

PROJECT EVALUATION SHEET
VIET NAM

SECTOR: **AEROSOL** ODS use in sector (1994): 200 ODP tonnes

Sub-sector cost-effectiveness threshold: Hydrocarbon US $4.40/kg

Project Titles:

a) Conversion to CFC-free hydrocarbon aerosol propellant technology at Daso Company Ltd.; *****

b) Conversion to CFC-free hydrocarbon aerosol propellant technology at Cosmetics Producing and Trading Company (CP&T) *****

Project Data	**AEROSOL**	
	Daso	**CP&T**
ODSphase-out (ODP tonnes)	27	85
Proposed project duration (Yrs)	1	1.5
Incremental capital cost (US $)	154,770	321,420
Contingency (%)	10	10
Incremental operational cost (US $)	(30,430)	(36,300)
Total project cost (US $)	124,340	285,120
Local ownership (%)	100	100
Export component (%)	-	-
Amount requested (US $) {Original	112,340	285,120
{Revised	110,340	285,120
Cost effectiveness (US $/kg)	4.08	3.35
National Coordinating Agency	Hydro-Metereological Service	Hydro-Metereological Service
Implementing Agency	UNDP	UNDP
Technical review completed?	Yes	Yes

Secretariat's Recommendations		
Amount recommended (US $)	110,340	285,120
Project impact (ODP tonnes)	27	85
Cost effectiveness (US $/kg)	4.08	3.35
Implementing Agency support cost (US $)	14,344	37,066
Total cost to Multilateral Fund (US $)	124,684	322,186

* New proposal to the 18th Meeting

PROJECT DESCRIPTION

1. Total consumption of CFCs in the aerosol sector in Viet Nam is estimated at 200 tonnes. The Executive Committee, at its 17th Meeting, approved a project related to the conversion to hydrocarbon aerosol propellant technology (HAP) at Saigon Cosmetics Companies, with a CFC consumption of 80 tonnes. The two projects being submitted to the 18th Meeting will lead to an additional elimination of 112 tonnes of CFCs, leaving only 8 tonnes of CFC consumed in this sector. The Government is in the process of completing a survey on small aerosol fillers (about 15 plants) and studying the feasibility of creating a filling center to cater to the needs of these fillers.

2. Daso Company produces hair sprays (an average of 190,000 cans/year) and body sprays (50,000 cans/year). The company is currently filling with a manually-operated equipment with a capacity of 2,000 cans/day. Cosmetics Producing and Trading Company (CP&T) is a large public sector company producing an average of 7,637,000 cans/year of various perfumes and colognes. Filling operations are done through 20 manually operated filling machines, 4 crimpers and 8 product fillers.

3. Both enterprises will convert to HAPs technology, using the open air filling room method. Conversion entails installation of a semi-automatic pneumatic filling machine for Daso and an automatic 60 cpm pneumatic filling machine for CP&T. In each plant a water bath for testing filled cans, and a small fire control systems including a water reservoir, pumps, hoses and fire extinguishers, will also be installed.

4. Technical services will include quality gauges for testing, assistance in developing new formulations, a training programme and on-going safety audits. Once the projects are completed, the enterprises will destroy the old filling equipment to avoid their future use for filling CFCs.

5. The capital cost of conversion in Daso is US $154,770, including 10% contingency. The enterprise will finance works related to site preparation for the open air filling room, tank storage area, water reservoir for fire protection system, pumps and extinguishers, estimated at US $14,000. The operational savings (NPV) for four years is US $30,430.

6. The capital cost of conversion in CP&T is US $240,200, including 10% contingency. The operational savings (NPV) for four years is US $36,300.

SECRETARIAT'S RECOMMENDATIONS

1. To approve the two projects as indicated below and include them in the list of new projects submitted to the Eighteenth Meeting:

Project	Project Cost US $	Support Cost US $	Implementing Agency
(a) Conversion to CFC-free hydrocarbon aerosol propellant technology at Daso Company Ltd.;	110,340	14,344	UNDP
(b) Conversion to CFC-free hydrocarbon aerosol propellant technology at Cosmetics Producing and Trading Company (CP&T)	285,120	37,066	UNDP