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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Twenty-fifth Meeting
Montreal, 29-31 July 1998

Addendum

PROJECT PROPOSALS: CHINA

Sub-sector: Rigid

(b) Conversion of refrigerator manufacture from CFC-11 to cyclopentane foam blowing agent in the production of PU insulation panels at Foshan (World Bank).

1. The Secretariat and the World Bank concluded discussions on the project's costs and agreed as follows:

Incremental capital cost:	US $ 478,500
Incremental operational cost	US $ 265,000
Total project cost	US $ 743,500
13% Agency support cost	US $ 96,655

2. The Fund Secretariat and the World Bank agreed that the project and its indicated costs as listed below should be recommended for approval.

Project Title	Project Cost US $	Support Cost US $	Implementing Agency
Conversion of refrigerator manufacture in Foshan from CFC-11 to cyclopentane foam blowing agent in the production of PU insulation panels	743,500	96,655	World Bank

(a) Conversion of HCFC-141b in the manufacture of rigid and spray polyurethane foams at Daqing Petroleum Organization Bureau (UNDP).

(c) Conversion of rigid and spray polyurethane foam manufacture from CFC-11 to HCFC-141b foam blowing agent at Victory Petroleum Organization Bureau (UNDP).

1. The agreed capital cost of Daqing is US $ 478,500, while that of Victory is US $ 324,500.

2.. The incremental operational costs of the two projects as calculated by UNDP with 10% additional foam are indicated below. For Daqing the incremental operational cost due to the additional foam makes up 54% of the requested operational cost and 34% of the requested project grant, while for Victory these are 37% and 16% respectively.

Project	IOC due to differences in foam formulation and chemical prices US $	IOC due to additional 10% foam US $	Total US $	IOC Requested US $ (capped by cost-effectiveness threshold)
Daqing	386,800	768,175	1,154,977	835,480
Victory	148,770	295,450	444,200	239,260

3. The Secretariat and UNDP continued discussions of the incremental operational costs of the two projects but could not reach agreement on their levels because of the uncertainty about whether the foams of initial high density (50-60 kg/m3) would require the additional 10% foam increase or less.

Sub-sector: Flexible slabstock

(a) Conversion from CFC-11 to methylene chloride and forced cooling system in the manufacture of flexible polyurethane foam (slabstock) at Cangzhou new-type foam decoration material plant

(c) Conversion of PU slabstock manufacture to forced cooling and methylene chloride at Wuxi

1. The Secretariat and the implementing agencies concerned (UNDP and the World Bank) discussed the outstanding issues and agreed that based on information provided by the government the forced cooling technology could be considered as mature in China. The costs of the Cangzhou and Wuxi projects were calculated to be US $ 417,410 and US $ 414,621 respectively.

2. The additional capital cost due to the forced cooling system and ancillary equipment (stand-by generator) for Cangzhou is US $195,000 (for vertifoam and boxfoam), while that of Wuxi is US $180,000 or 47 per cent and 43 per cent of the requested grants respectively. Comparative cost analysis was made by the Secretariat based on the use of urethane grade methylene chloride and price structure for the chemical provided by one

major supplier. This showed that the project costs for Cangzhou would be US $367,700 or 83 per cent of the requested grant and that of Wuxi would be US $249,900 or 60 per cent of the requested grant.

3. On account of the following considerations agreement could not be reached on the level of funding to be recommended for approval.

- The capital costs associated with methylene chloride projects, namely the costs of storage tanks, metering systems, ventilation and safety, for projects of similar capacities and ODS consumption are the same, irrespective of whether a company uses forced cooling system or not.
- The combined use of methylene chloride and forced cooling system are primarily found in flexible slabstock foam projects submitted for China.
- The main reason for continued use of forced cooling system in the project is lack of urethane grade methylene chloride.
- The Executive Committee's Decision taken at its 18th Meeting in November 1995, requesting UNDP and the Government of China to explore the possibilities of improving access of the flexible slabstock foam manufacturers to foam grade methylene chloride in order to reduce the high cost of methylene chloride technology in the country.
- A statement from the Government of China which indicated that there were not many chemical suppliers who have interest in developing urethane grade methylene chloride in the country.

4. The projects are therefore submitted for individual consideration.

(b) Conversion to LCD in the manufacture of flexible (slabstock) polyurethane foam at Jinling Petrochemical Co.

This project was recommended for blanket approval, however it appeared in the original document as pending. The error is being rectified and the project is confirmed for blanket approval as follows:

Project Title	Project Cost US $	Support Cost US $	Implementing Agency
Conversion to LCD technology in the manufacture of flexible (slabstock) polyurethane foam at Jinling Petrochemical Co. Plastics Factory.	504,630	65,602	UNDP

Sub-sector: Extruded polystyrene

(d) Elimination of CFC-12 in the manufacture of EPE Foam Packaging Nets at 25 enterprises (Umbrella Project).

1. The Secretariat and UNIDO concluded discussions of this project and agreed as follows:

Capital costs:

- To remove the molecular sieves from the capital costs.
- Consider a lump sum of US $200,000 for general consulting service.

Operational costs:

- To base the calculation of the incremental operational costs/savings on foam grade butane.
- To remove the costs of additional electricity consumption, additional insurance and yield losses from the calculation of the incremental operational cost/savings.

2. The agreed project costs following the discussions are as follows:

Total incremental capital cost:	US $6,353,340
Total incremental operational savings	US $1,864,824
Total project cost	US $4,488,516
Agency support cost	US $583,507

3. The project is submitted for individual consideration.