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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
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PROJECT PROPOSALS: YUGOSLAVIA

This document consists of the comments and recommendations of the Fund Secretariat on the following project proposals:

Foam:

- Conversion from CFC-11 to methylene chloride in the production of flexible slabstock foam at Prva Iskra-Poliuretani UNIDO
- Phase-out of CFC-11 consumption by conversion to n-pentane technology at Prva Iskra - Fim Co. in the production of continuous rigid polyurethane foam insulating panels UNIDO

Halon:

- Halon bank management program UNIDO

**PROJECT EVALUATION SHEET
YUGOSLAVIA**

SECTOR: Foam ODS use in sector (2000): 280 ODP tonnes

Sub-sector cost-effectiveness thresholds: Flexible US \$6.23/kg
Rigid US \$7.83/kg

Project Titles:

- (a) Conversion from CFC-11 to methylene chloride in the production of flexible slabstock foam at Prva Iskra-Poliuretani
(b) Phase-out of CFC-11 consumption by conversion to n-pentane technology at Prva Iskra - Fim Co. in the production of continuous rigid polyurethane foam insulating panels

Project Data	Flexible slabstock	Rigid
	Iskra-Poliuretani	Iskra - Fim
Enterprise consumption (ODP tonnes)	34.40	75.00
Project impact (ODP tonnes)	34.40	75.00
Project duration (months)	24	30
Initial amount requested (US \$)	100,240	586,799
Final project cost (US \$):		
Incremental capital cost (a)	100,000	436,010
Contingency cost (b)	10,000	43,601
Incremental operating cost (c)	-9,760	-3,883
Total project cost (a+b+c)	100,240	475,728
Local ownership (%)	100%	100%
Export component (%)	0%	0%
Amount requested (US \$)	100,240	475,728
Cost effectiveness (US \$/kg.)	3.30	6.34
Counterpart funding confirmed?	Yes	Yes
National coordinating agency	Federal Secretariat for Science and Development	
Implementing agency	UNIDO	

Secretariat's Recommendations		
Amount recommended (US \$)	100,240	475,728
Project impact (ODP tonnes)	34.40	75.00
Cost effectiveness (US \$/kg)	3.30	6.34
Implementing agency support cost (US \$)	13,031	61,845
Total cost to Multilateral Fund (US \$)	113,271	537,573

PROJECT DESCRIPTION

Sector background

- Latest available total ODS consumption (1999)	568.1 ODP tonnes
- Baseline consumption of Annex A Group I substances (CFCs)	849.2 ODP tonnes
- Consumption of Annex A Group I substances for the year 1999	548.6 ODP tonnes
- Baseline consumption of CFCs in foam sector	372.0 ODP tonnes
- Consumption of CFCs in foam sector in 2000*	280.0 ODP tonnes
- Funds approved for investment projects in foam sector as of end of July 2001	0
- Quantity of CFC to be phased out in investment projects in foam sector as of end of July 2001	Not applicable
- Quantity of CFC phased out from approved investment projects in the foam sector as of end of July 2001 (including CFC phased out in projects not yet reported as completed)	Not applicable
- Quantity of CFCs in approved ongoing investment projects in the foam sector as of end of July 2001	Not applicable
- Quantity of CFCs remaining to be phased out in the foam sector as of end of July 2001	280.0 ODP tonnes
- Quantity of CFCs to be phased out in investment projects being submitted to the 35 th ExCom (December 2001).	109.4 ODP tonnes
- Quantity of CFCs remaining to be phased out in the foam sector by the end of 2001	170.6 ODP tonnes

* Based on information provided in the project document by UNIDO and is subject to future verification with official Government data.

1. The most recent data available for Yugoslavia are that of 1999. The Government of Yugoslavia informed the Fund Secretariat of the difficulty in collecting data arising from recent events in the country. It assured the Secretariat that relevant Government organizations are currently engaged in this activity and the Government was hopeful that it will be in a position to communicate consumption data to the Secretariat in due course. The sector-based information has been taken from various sources, including the project proposals submitted by UNIDO, which is also the agency responsible for the country's institutional strengthening project.

Flexible Slabstock Foam

Prva Iskra-Poliuretani

2. Prva Iskra-Poliuretani is the major consumer of CFC-11 for the production of flexible slabstock foam in Yugoslavia, since the largest company, SIMPO, Vranje has already converted its production to methylene chloride. Thus, UNIDO reports that, after approval of this project only some SME's may have to be assisted through an umbrella project. Iskra-Poliuretani consumed 34.4 tonnes CFC-11 in 2000 in the production of slabstock foam for mattresses and furniture, peeled laminators, sound absorbers, etc. using a Viking Maxfoam 750. The total

incremental capital cost of conversion amounts to US \$100,000, which includes US \$85,000 for equipment (methylene chloride metering system, process and cure area ventilation facility) and US \$13,000 for trials, technology transfer and training. Incremental operating savings of US \$9,760 are realized. The project is expected to be completed in 2 years.

Prva-Iskra Fim Co.

3. Prva-Iskra Fim established in 1984 is the sole manufacturer of rigid foams in Yugoslavia. The company manufactures rigid polyurethane foam insulation panels for the construction industry, including cold stores and supermarkets. The company consumed 47.5 ODP tonnes of CFC-11 in 2000. It currently operates an Admiral H.D. 150-2H production line with an installed capacity of one million square metres of insulation panels per year installed in 1984. Prva-Iskra Fim will phase out the use of CFC-11 by converting to n-pentane as the foam blowing agent. The total incremental capital cost of the project is US \$593,890 covering the costs of replacement of the existing low-pressure dispenser with high-pressure model, five high accuracy metering and dosing pumps with mass flow metering units for all the chemical streams, high pressure hydraulic units, extension to the curing area, fire protection and safety facilities, trials (US \$6,400), technology transfer and training. Incremental operating savings of US \$7,080 are realized. The project is expected to be completed in 2 years and 6 months.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

4. Both foam projects meet the relevant requirements of the Executive Committee Decision 33/2.

Flexible slabstock foam

5. The Secretariat and UNIDO agreed on the cost of the project as originally proposed.

Rigid foam

6. The Fund Secretariat identified some technical issues relating to some of the equipment items proposed for the conversion as well as with the foam formulation. These issues were discussed and resolved and the eligible incremental costs of the project agreed as follows:

Incremental capital cost:	US \$479,611
Incremental operating savings:	(US \$3,883)
Total	US \$475,728

RECOMMENDATIONS

7. The Fund Secretariat recommends blanket approval of the Prva Iskra-Poliuretani and Prva Iskra-Fim projects with the level of funding and associated support costs indicated below.

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Conversion from CFC-11 to methylene chloride in the production of flexible slabstock foam at Prva Iskra-Poliuretani	100,240	13,031	UNIDO
(b)	Phase-out of CFC-11 consumption by conversion to n-pentane technology at Prva Iskra - Fim Co. in the production of continuous rigid polyurethane foam insulating panels	475,728	61,845	UNIDO

**PROJECT EVALUATION SHEET
YUGOSLAVIA**

SECTOR: Halon ODS use in sector (1999): 19.5 ODP tonnes

Sub-sector cost-effectiveness thresholds: N/a

Project Titles:

(a) Halon bank management program

Project Data	Extinguisher
Enterprise consumption (ODP tonnes)	1,250.00
Project impact (ODP tonnes)	370.00
Project duration (months)	24
Initial amount requested (US \$)	452,900
Final project cost (US \$):	
Incremental capital cost (a)	277,000
Contingency cost (b)	22,700
Incremental operating cost (c)	
Total project cost (a+b+c)	299,700
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US \$)	249,700
Cost effectiveness (US \$/kg.)	0.67
Counterpart funding confirmed?	
National coordinating agency	Federal Secretariat for Science and Development
Implementing agency	UNIDO

Secretariat's Recommendations	
Amount recommended (US \$)	249,700
Project impact (ODP tonnes)	370.00
Cost effectiveness (US \$/kg)	0.67
Implementing agency support cost (US \$)	32,461
Total cost to Multilateral Fund (US \$)	282,161

PROJECT DESCRIPTION

Project Summary

8. This project incorporates the establishment of a National Halon Management and Banking operation in Yugoslavia to facilitate halon use phase-out in the most effective and environmentally-friendly manner without increasing fire risks to the community. The project would develop the technical and organisational infrastructure necessary for a national halon banking programme. Approximately 25 tonnes per year of Halon 1301 and 40 tonnes per year of Halon 1211 would be recovered, recycled, and banked for re-use in more critical applications. The project includes the provision of halon recovery and recycling equipment, storage facilities, test equipment and recovery equipment to enable halons to be collected and distributed. A computer would be provided to enable a database on halon stocks and users in Yugoslavia. This database would be integrated with other national or regional halon databanks and the international halon bank clearinghouse operated by the UNEP DTIE. An Advisory Group/Steering Committee would be set up to support and monitor halon bank activities and management. The Halon Management Programme would also include awareness and training activities as well as information on alternative technologies.

9. According to the proposal, there is no continuous halon equipment production in Yugoslavia. There is one large and several SME enterprises providing fire protection equipment to the country. The large producer, Vatrosprem, produces fire extinguishers and fixed systems for the principle alternatives. Although there is no current production of halon at Vatrosprem, the company indicated that it felt obliged to provide servicing to halon equipment users. The project would provide servicing equipment to Vatrosprem.

Sector Background

10. The Federal Republic of Yugoslavia, and before 1992 the former Yugoslavia, has never produced halons. Halon 1301 and Halon 1211 has been imported mostly from Western Europe (Italy, Germany, the United Kingdom, and France). Halon 2402 as such was not imported to Yugoslavia in bulk although a small amount of it was contained in military equipment imported by Yugoslavia from Russia before the 1980's.

11. Due to the political turmoil and change that beset Yugoslavia during the past decade, it has been very difficult to quantify, to an acceptable degree of accuracy, the halon consumption in the Federal Republic of Yugoslavia. However, the amount of halon agents contained in existing systems and fire extinguishers is assessed to be 250 metric tonnes of halon 1301 and 400 metric tonnes of halon 1211. The incremental cost of the project was determined on this basis.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

12. The project document indicates that the consumption of halon will cease upon the completion of the project. The project is expected to be completed in December 2003.

13. The request complies with Decision 18/22 for countries with a medium-level of installed capacity.

RECOMMENDATIONS

14. This project is recommended for blanket approval in the amount as indicated below with the understanding that this will be the final halon project for Yugoslavia and that the consumption of halon in Yugoslavia would cease starting January 2004.

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Halon bank management program	249,700	32,461	UNIDO
