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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: MALAYSIA

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

Aerosol

- Tenco Industries Sdn. Bhd. Conversion Project — World Bank

PROJECT EVALUATION SHEET
MALAYSIA

SECTOR: **AEROSOL** ODS use in sector (1991): 350 ODP tonnes

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

Project Title:

Tenco Industries Sdn. Bhd. Conversion Project

Project Data	**Tenco Industries**
ODS phase-out (ODP tonnes)	18
Proposed project duration (Yrs)	1
Incremental capital cost (US $)	209,648
Contingency (%)	15
Incremental operational cost (US $)	
Total project cost (US $)	215,117
Local ownership (%)	100
Export component (%)	-
Amount requested (US $) {Original	215,117
{Revised	215,117
Cost effectiveness (US $/kg)	US $11.65/kg
National Coordinating Agency	The Department of the Environment
Implementing Agency	World Bank
Technical review completed?	Yes

Secretariat's Recommendations	
Amount recommended (US $)	79,200
Project impact (ODP tonnes)	18
Cost effectiveness (US $/kg)	4.40
Implementing Agency support cost (US $)	10,296
Total cost to Multilateral Fund (US $)	89,496

PROJECT DESCRIPTION

1. Tenco Industries manufacture aerosol paint, mould release cleaner and other maintenance products.

2. The enterprise will convert to HAPs technology, using a gas house method. Conversion entails installation of one automatic pneumatic filling machine with water bath for testing filled cans, a gas house with gas detectors, explosion proof wiring/lighting and fire extinguishers. Technical assistance will be provided for equipment installation, training of personnel in production, quality control and safety procedures and production trials.

3. DME (dimethyl ether) will be used for some paints where HAPs do not have sufficient solvency to work with the resins used by the enterprise.

4. Except for the filling machine, the equipment required for the conversion will be purchased locally.

5. The enterprise will finance costs associated with plant modifications for the new filling machine, construction of the gas house, LPG storage tank, molecular sieve columns and pipelines for purification of the LPG and freight and insurance costs.

6. The enterprise considers that operating savings that may accrue because of the use of a cheaper propellant will be offset by higher insurance costs, regular maintenance and future expenses in safety needs and on going safety training. However, no calculations were provided supporting that statement.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The project was submitted by the World Bank for consideration by the Executive Committee at its 17th Meeting. Since the cost effectiveness of the project was US $11.65/kg, above the threshold value (US $4.40/kg), the project was deferred. As no strategy for low-ODS consuming enterprises was adopted at the 17th Meeting of the Executive Committee, the World Bank resubmitted the same project to the 18th Meeting, expecting that special consideration would be given to small enterprises.

2. On 19 October 1995, the Secretariat informed the World bank that the project could not be considered by the Executive Committee and suggested that the Bank withdraw the project. On 14 November 1995, the World Bank informed the Secretariat that the enterprise would like to opt for partial funding, with a financial contribution of US $130,450.

3. When comparing this project with a similar Malaysia project which has been approved by the Committee (Maya Chemical Industries, with an annual CFC consumption of 13 tonnes), operational savings from Tenco should amount to US $26,000 (NPV) for four years. Thus, the actual financial contribution by the enterprise would be US $104,000.

4. The Fund Secretariat considers that incremental capital costs to the level of grant sought are eligible. However, the Fund Secretariat makes no comment on the validity or otherwise of the total level of incremental costs included in the project submission, since no information was provided on the incremental operating savings of the project.

RECOMMENDATIONS

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
Tenco Industries Sdn. Bhd. Conversion Project	79,200	10,296	World Bank

2. The Fund Secretariat further recommends that the project be included in the Consolidated List.