Project 16/2004 - Modelling, Monitoring and Characterisation of Heavy Metals in Thermal Treatment of Municipal Solid Waste

Purpose

This paper seeks Members' approval to fund the captioned application for ECF made by Hong Kong University of Science and Technology (HKUST).

Background

2. The funding requested by this project is $149,910 to cover an estimated expenditure of $143,910 on staff cost of one Research Assistant and $6,000 on materials and analysis cost. The project is expected to last for 9 months.

3. The project aims to predict and verify the behaviour of heavy metals in thermal treatment of municipal solid waste (MSW) with respect to processing conditions and MSW composition. The project is mutually supportive with respect to the co-combustion pilot plant jointly developed by the HKUST and Green Island Cement.

4. EPD considered that the project would be mostly beneficial to the cement kilns plant if they used MSW as part of the fuel. EPD did not support the project because some of its scopes might duplicate with the work being carried out by EPD. For instance, the Chemical Waste Treatment Centre served to monitor and analyze the characteristics of incineration ashes, and the feasibility study of Waste-to-Energy Facility being carried out by EPD had also examined and suggested ways to reuse and recycle the post-combustion residues. Besides, as the express of interest exercise to help identify the most feasible option(s) of MSW treatment for Hong Kong is still on-going, EPD considered it not appropriate to commission a study on the by-products of a treatment technology which has yet to be confirmed on its applicability in Hong Kong.

5. In fact, the same project was submitted by the same principal investigator in 2003. The project was considered by the Research Projects Vetting Sub-committee on 5 June 2003 and the meeting decided not to support the proposal. An extract of the minutes of meeting is given in the Annex for members' information.

Advice sought

6. Members are invited to advise whether the application for ECF as detailed in paragraphs 2 and 3 above should be approved.

Secretariat, ECF Research Projects Vetting Subcommittee
November 2004

Annex

Extract from
Confirmed Minutes of ECF Research Projects Vetting Sub-committee Meeting

Date : 5 June 2003 (Thursday)
Time : 11:00 am
Venue : Environment, Transport and Works Bureau, Conference Room 1007,
10/F Citibank Tower, 3 Garden Road, Central, Hong Kong

Agenda Item 4 : New Applications

4. Discussion of the new applications was summarized below -

Project No.	Project Title	Project Proponent	ECF Grant applied	Meeting Decision
3/2003	Modelling, Monitoring and Characterisation of Heavy Metals in Thermal Treatment of Municipal Solid Waste (Paper 25/2003)	HKUST	$149,910	Not supported. The meeting noted that the application was part and parcel of another project also carried out by the applicant organization, which was funded by the Innovation and Technology Fund, and considered it not appropriate for ECF to fund the application.