

**Tung Wah Group of Hospitals – Project Variation to Indoor Air Quality Improvement**

Project Reference	ECF-TWGH-03
Project Title	Tung Wah Group of Hospitals (TWGH) – Moving Towards a Green Organization – Indoor Air Quality (IAQ) Improvement
Applicant Organization	Tung Wah Group of Hospitals
Project summary	<p>The IAQ Improvement project, with a budget of \$425,600 approved by the ECF Committee on 9 June 2011, was one of the projects under TWGH's three-year greening programme. The objective of the project is to improve the indoor environment of TWGH's Administration Headquarters at the Wong Fung Ling Memorial Building, and will be conducted in three stages –</p> <ul style="list-style-type: none"> <li>(a) Stage One – walkthrough inspection to be carried out by a registered IAQ consultant;</li> <li>(b) Stage Two – IAQ improvement works to be carried out by a registered IAQ control facility supplier; and</li> <li>(c) Stage Three – comprehensive IAQ measurement by the same IAQ consultant in (a) above.</li> </ul>
Original Project Duration	11 months (1 August 2011- 30 June 2012)
Approved Amount	\$425,600
Request for Project Extension and Additional Funding	<p>TWGH has recently requested for:</p> <ul style="list-style-type: none"> <li>(a) an additional funding totalling \$85,000 for engaging a mechanical and electrical (M&amp;E) consultant (at \$80,000) for the design of IAQ improvement works under Stage Two of the project, and for engaging the IAQ consultant to conduct an additional walkthrough inspection (at \$5,000); and</li> <li>(b) an extension of the 11-month project by 21 months up to March 2014.</li> </ul> <p>Details of the request are as follows:</p> <ul style="list-style-type: none"> <li>(a) <u>Request for additional funding</u></li> </ul> <p>To take forth the project, TWGH has engaged the Business Environment Council Limited (BEC) as its IAQ</p>

consultant. A walkthrough inspection and an IAQ measurement were conducted by BEC in November 2011, as a result of which BEC recommended that the fresh air flow rate in the premises should be increased by replacing the current primary air handling unit (PAU) with one with a larger capacity.

To take up BEC's recommendation, TWGH proceeded to obtain quotations for a Design and Build Contract for the PAU under Stage Two of the project in May / June 2012. However, from the quotations received, TWGH found that the cost of the PAU would vary substantially under different designs. After reviewing the situation in consultation with BEC, TWGH decided to appoint an M&E consultant to draw up a design for the PAU first, before further invitation of quotations for the PAU improvement works. The cost of service of the M&E consultant is estimated to amount to \$80,000.

According to TWGH, to meet the IAQ certification requirements, the walkthrough under Stage One and final inspections under Stage Three of the project should be carried out within one year. As the improvement works for the new PAU would take over a year to complete, an additional walkthrough inspection has to be conducted to check the site situations and verify the effectiveness of the newly installed PAU under Stage Three. The additional fee proposed by BEC is \$5,000, which is the same as that of the previous lowest quotation for the Stage One and Stage Three tasks of the IAQ consultant.

TWGH further explained that under the approved budget of \$425,600, an amount of \$330,600 was earmarked for the IAQ improvement works under Stage Two (i.e. the PAU improvement). Pending the design of the PAU, TWGH would further seek the ECF Committee's approval for any budget variation that may be needed for the PAU improvement works, particularly if the earmarked amount is insufficient to cover the requirement.

(b) Extension of project duration

As advised by TWGH, there was slippage in the project since the improvement works for the PAU proposed by BEC involved the replacement of a major component of the existing air conditioning system, such that time had

	<p>been taken to consider the feasibility (e.g. spatial requirements, compatibility with existing system, and practicality of modification works), effectiveness and cost of the proposal. After reviewing the project implementation timeframe, TWGH anticipates that an extension of the project period to March 2014 is necessary, as follows:</p> <ul style="list-style-type: none"> <li>• Stage Two (IAQ improvement works) will be completed in 15 months (i.e. from November 2012 to January 2014), allowing time for the engagement of an M&amp;E consultant, design for the PAU, and implementation of the improvement works; and</li> <li>• Stage Three (walkthrough and final inspections) will be completed in two months (i.e. from February 2014 to March 2014).</li> </ul>
Assessments/Remarks	<p>TWGH's proposed engagement of an M&amp;E consultant for the design of a PAU with a larger capacity, which has arisen from the IAQ consultant's recommendations, and the additional walkthrough as stipulated by the IAQ certification requirements, appear justified. However, since the actual cost of the PAU improvement works cannot be ascertained until the PAU design is available, the Secretariat considers it premature now to assess whether the total approved budget at \$425,600 is sufficient to cover the expenditure of the project, and hence to consider TWGH's requested additional funding of \$85,000. In any event, we note from the IAQ consultant's walkthrough inspection report that the estimated cost of the PAU improvement is around \$250,000, against the budget of \$330,600 earmarked for the IAQ improvement works under the project. In the light of the above, Members may wish to consider whether to accede to TWGH's request for the provision of an additional funding at \$85,000 for engagement of an M&amp;E consultant and for the additional walkthrough inspection.</p>
Advice Sought	<p>Members are invited to advise whether TWGH's requests for (a). additional funding for engagement of an M&amp;E consultant and for conducting an extra walkthrough exercise; and (b). extension of the project by 21 months to March 2014 should be approved.</p>