

Construction Industry Council

Committee on Environment and Technology

Meeting No. 004/11 of the Committee on Environment and Technology for 2011 was held on 5 September 2011 (Monday) at 2:30 pm at 15/F, Allied Kajima Building, 138 Gloucester Road, Wan Chai, Hong Kong.

Present:	Conrad WONG	(CW)	Chairman
	Siu-hung CHAN	(SHC)	
	Hau-wai CHEUNG	(HWC)	
	Wai-wah HO	(WWH)	
	Jan-ming KO	(JMK)	
	Wo-hei LAM	(WHL)	
	Choi-kai AU	(CKA)	Director of Buildings
	Jimmy CHAN	(JiCN)	Development Bureau
	Tat-tong CHEUNG	(TTC)	Hong Kong Institute of Surveyors
	Ping-wai CHOW	(PCH)	Hong Kong Construction Industry Employees General Union
	Dan FUNG	(DF)	Environmental Protection Department
	Pun-hing HO	(PHH)	Hong Kong Federation of Electrical and Mechanical Contractors
	Russell JONES	(RJ)	Hong Kong Construction Association
	Derrick PANG	(DP)	Chun Wo Development Holdings Ltd
In Attendance:	C K MOK	(CKM)	Architectural Services Department (on behalf of Mr. YIU Wai-keung)
	Andrew KWONG	(AK)	Chair of Task Force on Adhesion Technologies for External Wall Tiles
	Guiyi LI	(GYL)	Senior Manager (Research)
	Ivan WONG	(IW)	Senior Manager (Council Services) 2
	Ivan KO	(IK)	Manager (Council Services) 2
Apologies:	Andrew CHAN	(AC)	
	James KWAN	(YCK)	
	Ada FUNG	(AF)	for Permanent Secretary for Transport and Housing (Housing)
	Joseph LEE	(HWL)	
	Kam-hung YU	(KHY)	
	Wai-wai, YU	(WWY)	
Peter LEE	(PL)	The University of Hong Kong	

Connie YEUNG (CYG) Housing Department
Long PANG (LP) Construction Site Workers General
Union

PROGRESS REPORT

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4.1 Confirmation of the Progress Report of the Previous Meeting

Members took note of Paper CIC/ENT/R/003/11 and confirmed the progress report of the last meeting held on Thursday, 16 June 2011 at 15/F, Allied Kajima Building, 138 Gloucester Road, Wan Chai , Hong Kong.

4.2 Matters Arising from the Previous Meeting

4.2.1 The trial run of KPIs would be submitted to Com-ENT for review at the next meeting.

4.2.2 The Secretariat had approached MTRC to identify a suitable contact point with a view to introducing the research proposal for the study on the use of Optical Fibre Sensors and was awaiting the response from MTRC.

4.2.3 The following persons agreed to join the Working Group on Strategic Implementation of Prefabrication and Modular Construction:

- *Mr. Derrick PANG, Co-opted Member of Com-ENT as the Chair*
- *Prof Albert Kwan of HKU, speaker of the recent Prefabrication Seminar*
- *Mr. Simon Sun, Representative from Hong Kong Precast Concrete Manufacturers Association*
- *Mr. Joseph Mak, Representative from Housing Authority, who had presented at the Com-ENT before*

Buildings Department would nominate a representative to join the Working Group. Moreover, Chairman would like to extend the membership to include a representative from CEDD so as to cover civil engineering works.

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Secretariat**

[Post Meeting Note: Ms Karen Cheung of Buildings Department was nominated to the Working Group.]

4.2.4 The Secretariat attended the meeting regarding LegCo Panel on Environmental Affairs – EIA Mechanism on 27 June 2011 which focused on possible amendments to EIAO without touching on the judicial review of the EIA on Hong Kong – Zhuhai – Macao Bridge Hong Kong Link Road. Attendees mainly concerned with the role, composition and authority of the Advisory Council on the Environment.

4.2.5 The Secretariat would conduct the review and report to Com-ENT in due course.

4.3 **Task Force on Adhesion Technologies for External Wall Tiles – Progress Update**

Members took note of the Paper CIC/ENT/P/024/11.

The Secretariat highlighted the followings which were discussed in the Discussion Session amongst the Task Force members on 18th August 2011:

1. it was re-called that during the preparation of the Outline Brief for the study with representative from HKCA, having considered the time and scope (and thus the budget) of the study, any previous study findings would form the basis of the present study and hence literature review was included in the Outline Brief. However, HKCA expressed that all the data should come up with scientific data from AECOM's laboratory tests instead of shared experience;
2. Buildings Department issued a guideline on Building External Finishes – wet-fixing tiles. The industry stakeholders would quest for more detailed solutions/ guidelines resulting from this consultancy study;
3. HKCA requested a solution to totally eliminate the risk to endanger general public from debonding. However, some Task Force members wonder if it would be realistic to have such a “perfect solution” within a manageable time period for the study. Instead, a continuous improvement solution should be targeted by having a monitoring system in place to gauge the problems;

Chairman expressed that:

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1. according to the working scope of the consultancy study, AECOM did address the requirement as stipulated in the study brief in general. However, the level of details that HKCA expected was out of the study scope;
2. in the course of drafting the Outline Brief, the Task Force members expected that the use of the Guidelines would be served as “practical guidance” rather than “contractual terms”. However, the industry might incorporate the Guidelines into their upcoming tender documents. Therefore, difference of expectation/ intention existed.

A Member explained that there were quite a number of studies conducted before but the findings were diversified. Hence, literature review on those previous studies was necessary to draw some concluded findings.

Some Members expressed that it was not realistic to come up a solution which could totally eliminate the risk of tile debonding.

Another Member said that making reference to previous research findings was a common way to conduct research. It was rare to start over everything again from scratch though it should be prudent in taking literature review with due care, e.g. whether the literature quoted in a guideline was fair and widely accepted by stakeholders.

After deliberation, Members’ general views were as below:

1. a guideline was required to fulfil the industry’s expectation and needs;
2. a complete risk-free solution could not be achieved practically; the purpose of the guideline was to address good practice/ best practice; however, a guideline without sufficient scientific substantial was not appropriate. In the event that there was not sufficient scientific backing but only a collection of experience substantiation, it would still be beneficial to issue the document (whether in fully or partially) as a reference document for the industry’s reference;
3. the content of guideline might address the followings so as to make the guideline become more fruitful:
 - recommended risk assessment should not be too generalised but cross reference with the age of the building;
 - environment factor in the course of preparation of

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- materials, esp bonding agents, should be considered;
- impact on workmanship in case of working at height;
- analysis of past failure cases although it was understood that there had not been such database yet;
- may consider to adopt prefabrication construction approach for those units with tiling materials and installing over 6 storeys height;
- consider adopting design and build approach towards the construction of wall tiling;
- could be issued the guideline as 2 separate documents – one is guideline for new building and another one is for existing building maintenance/ RMAA;

Chairman and Members set out the following directives for the Task Force:

**Task Force
on EWT**

1. the study should be kept proceeding in view of the importance of this study;
2. the purpose of the study was NOT to seek for a solution which could totally eliminate the risk of debonding but a set of improvement measures to reduce the risk of debonding;
3. being an important document, the guideline should be back with scientific substantiation; in case there was not sufficient scientific substantiation but only experience elaboration, the document of this study could still be issued as a “reference document” instead of “guidelines” or even not to issue to public at this stage;
4. a further study might be necessary to fully address the concern of HKCA; for the next phase of the study/ variation of the study, HKCA was requested to work with AECOM to come up with a proposal on further study which should explicitly spell out their expected approach of studies, scope of the study and laboratory testing, requirements on the deliverables for AECOM’s estimation of additional time and cost of such further study for the consideration of the Committee.

4.4 Research on River Sand Substitutes for Concrete Production and Cement Sand Mortar Production (Phase One) – Progress Update

Members took note of the Paper CIC/ENT/P/025/11.

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The Assessment Panel recommended commissioning HKU to conduct the research after assessing the tenders from five tenderers. Members endorsed the tender recommendation.

Due to the tender sum exceeding the budgeted amount, the endorsement of the tender sum by Com-ANF would then be sought.

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The current chairman of the Task Force - Mr. Peter Lee resigned his chairmanship of the Task Force to avoid any possible conflict of interest in future, CW thanked PL for his contribution to the Task Force and CW would identify a replacement.

[Post Meeting Note: Mr HO Wai-wah accepted to be the chairman of the Task Force.]

4.5 **Strengths and Weaknesses of the Hong Kong Construction Industry**

Members took note of the Paper CIC/ENT/P/026/11 and expressed their views as follows:

Strengths

1. Valuable human capital, i.e. high working efficiency and productivity, professionalism, personal integrity, international exposure in terms of design standards and practices, business ethics, mindset of safety and anti-corruption;
2. Strong at management practice especially quality assurance, safety management, contract management and dispute resolution;
3. Hong Kong could play an important role in bridging the Mainland and international participants who would like to enter the China market;
4. High work efficiency at corporate level and Industry-wide;

Weaknesses

1. Lack of innovation on character building design and sustainable development for the society. However, CIC's Zero Carbon Building could be a role-model on efficient energy building to

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- demonstrate the capability of Hong Kong construction industry in terms of sustainability and innovative technology;
2. Low mobility of manpower in recent years because of the large job opportunities in Hong Kong;
 3. Little support provided by the Hong Kong Government to lower the entry barrier to work in the Mainland though CEPA had been implemented for years;
 4. Higher construction cost and manpower cost than that of the Mainland. However, the higher cost in Hong Kong might be compensated by the higher efficiency and better management control. The inflation in the Mainland in coming years would narrow the gap between the Mainland and Hong Kong relating to the cost of construction and manpower.

Way Forward

1. Collaborate with the Mainland to seek for business opportunities outside Greater China;
2. Further develop Hong Kong's strength and leverage her strength which is weak in the Mainland e.g. Dispute Resolution, Workers' Wages Protection, etc, and export her strength to the Mainland;
3. Compete by quality instead of price.

4.6 Baseline Carbon Assessment for the Construction Process of Public and Private Projects

Members took note of the Paper CIC/ENT/P/027/11 and were requested for their co-operation and support to the Development Bureau's project if they were approached by its consultant – Ove Arup & Partners.

4.7 Research on Establishing a Hong Kong Based Carbon Labelling Framework for Construction Materials – Progress Update

Members took note of the Paper CIC/ENT/P/028/11 and CIC/ENT/P/029/11.

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The interim report has been submitted in July 2011 and commented by Task Force members. The progress of work was on schedule and it was expected to complete on time in April 2012.

Members would like to have a briefing session conducted by the researcher at the coming Com-ENT meeting so as to ensure the deliverables would be in the right track.

**CIC
Secretariat**

4.8 Any Other Business

4.8.1 Members noted the upcoming BIM seminar would be held at Novotel Century Hong Kong Hotel Wanchai on 11 October 2011 pm.

CIC Secretariat requested Members to extend the invitation to their respective organisations/ companies.

4.9 Tentative Date of Next Meeting for 2011

10 November 2011 at 2:30 pm at the CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong

All to note

There being no further business, the meeting was adjourned at 5:00 pm.