

Construction Industry Council

Committee on Environment and Technology

Meeting No. 004/10 of the Committee on Environment and Technology for 2010 was held on 24 August 2010 (Tuesday) at 2:30 pm at Hong Kong Construction Association, 16/F, 180 – 182 Hennessy Road, Wanchai, Hong Kong.

Present:

Conrad WONG	(CW)	Chairman
Andrew CHAN	(AC)	
Siu-hung CHAN	(SHC)	
Hau-wai CHEUNG	(HWC)	
Wai-wah HO	(WWH)	
Jan-ming KO	(JMK)	
Wo-hei LAM	(WHL)	
Wai-wai YU	(WWY)	
Choi-kai AU	(CKA)	Director of Buildings
Tat-tong CHEUNG	(TTC)	Hong Kong Institute of Surveyors
Ping-wai CHOW	(PCH)	Hong Kong Construction Industry Employees General Union
Anthony FOK	(AFK)	Environmental Protection Department
Pun-hing HO	(PHH)	Hong Kong Federation of Electrical and Mechanical Contractors
Russell JONES	(RJ)	Hong Kong Construction Association
Peter LEE	(PL)	The University of Hong Kong
Derrick PANG	(DP)	Chun Wo Development Holdings Ltd
Connie YEUNG	(CYG)	Housing Department

In Attendance:

Andrew FUNG	(AFU)	Architectural Services Department
Jonathan LEUNG	(MHL)	Development Bureau
Kam-wah LEUNG	(KLE)	CB Richard Ellis
Terry TAM	(TTA)	Architectural Services Department
Christopher TO	(CT)	Executive Director
Guiyi LI	(GYL)	Senior Manager (Research)
Ivan WONG	(IW)	Senior Manager (Council Services) 2
Phoebe LEUNG	(PLG)	Manager (Council Services) 2

For Agenda Item 4.3 only

Joseph MAK Housing Department

Apologies:

James KWAN	(YCK)
Joseph LEE	(HWL)
Kam-hung YU	(KHY)

Ada FUNG	(AF)	for Permanent Secretary for Transport and Housing (Housing)
Wing-wah CHUI	(WWC)	Development Bureau
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/003/10 and confirmed the progress report of the last meeting held on Friday, 2 July 2010 at Hong Kong Construction Association, Hong Kong.

4.2 Matters Arising from the Previous Meeting

4.2.1 Product certification for building materials

Arrangement would be made with the Housing Department for a presentation on certification of building materials.

4.2.2 Research on Establishing a Hong Kong Based Carbon Labelling Framework for Construction Materials (Research-CLS)

The Committee on Administration and Finance (Com-ANF) endorsed commissioning the HKU to conduct Research-CLS which was pending for approval of the CIC at the coming Council meeting.

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4.2.3 Proposed research on sustainable urbanisation in Hong Kong

Discussed under Agenda Item 4.7

4.2.4 Com-ENT seminar

Discussed under Agenda Item 4.4

4.2.5 CIC Research Funding Application Procedures

The proposal had not been endorsed by the Com-ANF. Chairman would further discuss with the Com-ANF on the

CW

proposal details.

4.2.6 Trip ticket system (TTS) in private sector works

Mr Russell JONES reported that the discussion with the MTRC on the use of GPS-based system was at a very preliminary stage and that no private project was identified for trial run of the TTS.

Members took note of a draft reply letter to the Environment Bureau, as tabled at the meeting, in response to the suggestion of mandatory introduction of the TTS to private construction projects. Members agreed that implementing administrative measures at this stage would be a favourable option and that the Secretariat should encourage statutory organisations and funding bodies to implement the CIC guidelines in their subvented projects.

4.2.7 Consultation on control of emission from non-road mobile sources

For the consultation documents from the Environmental Protection Department (“EPD”), no further comments were received from Members after the last meeting. The Secretariat would issue a reply letter, as tabled at the meeting, to the EPD.

4.2.8 Key performance indicators for construction industry

Discussed under Agenda Item 4.5

4.2.9 Identification of five building sites for on-site testing by the consultant of the Research on Adhesion Technologies of External Wall Tiles and Rendering

The Architectural Services Department had kindly consented to allow on-site testing at one of their building sites. As external wall tiles were not the current standard provision for public rental housing blocks, there was no suitable site from the Housing Department. The Secretariat was also seeking help from developers and contractors. A developer agreed to provide assistance.

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Secretariat**

4.2.10 Follow-up actions on CIRC recommendations

Discussed under Agenda Item 4.3.1

4.3 Prefabricated Construction

Members received a presentation from Mr Joseph MAK of the Housing Department sharing their experience in adopting prefabricated construction and modular flat designs.

4.3.1 Prefabricated Construction – Advantages and Limitations in Hong Kong

Members took note of the Paper CIC/ENT/P/021/10.

[Mr Conrad WONG declared that Yau Lee Group, where he served as Vice Chairman, engaged in the manufacturing of precast concrete products. As the discussion focused on experience sharing without decision-making, Mr WONG stayed at the meeting.]

Members discussed the merits and demerits of using prefabrication and modular components in the local industry. It was agreed that prefabricated construction could bring improvements on the following aspects:

- (a) Improved site safety: involve simple assembly of the precast components on sites and reduce the amount of work at height.
- (b) Reduced environmental impacts - substantially reduce both material wastage and construction wastes on sites as well as construction noise, air pollution and associated nuisance to nearby residents.
- (c) Improved working environment – less on-site activities to minimise cramped working environment which in turn helpful for attracting new entrants and existing workers to work for such projects.
- (d) Better quality control and assurance – resulted from mass production of standardised components.

Members supported advocating the use of prefabrication in the local construction industry but advised that it would entail changes in the current practices of procurement and

Action

design work as the success in the application of prefabrication leveraged on pre-construction planning. It was agreed that there should be an in-depth debate on its applicability to different works projects, including constraints such as compatibility to Hong Kong's quick pace construction method and store of precast components. As such, Members recommended organising a forum for discussion on the use of prefabricated construction in Hong Kong.

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[Mr Joseph MAK left the meeting after the discussion.]

4.4 Construction Technology Forum

Members took note of the Paper CIC/ENT/P/023/10. Noting that local universities would be invited to deliver presentations on the latest construction technology development and management practices, Members suggested refining the theme of the forum to better reflect such objectives. In addition, question and answer sessions should be arranged to allow interactive discussions between academics and industry practitioners. The Secretariat was requested to circulate a revised proposal for Members' approval.

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[WHL left the meeting at this juncture.]

[Post-meeting notes: the revised proposal with a theme of "Quality and Competitiveness through Technical Excellence" was circulated for Members' approval on 25 August 2010. Subsequently, the CIC at its meeting held on 27 August 2010 endorsed organising the proposed forum and agreed to include lunch arrangement in the programme to allow more opportunities for experience sharing.]

4.5 Initial Key Performance Indicators (KPIs) for Benchmarking the Performance of Construction Industry

Members took note of the Paper CIC/ENT/P/024/10 and generally agreed that the KPIs for the construction industry should cover the following areas:

- (a) safety and health;
- (b) environment;
- (c) economy and productivity;
- (d) public perception; and
- (e) manpower and labour.

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[DP arrived at this juncture.]

Some Members considered that a consultancy study would be required to develop a comprehensive system for assessing the performance of the construction industry. At this initial stage, the Secretariat was requested to make reference to the KPIs set by similar organisations in other countries and, in consultation with CIC committee chairmen, to identify a list of around 20 possible KPIs for Members' further discussion at the next scheduled meeting. Members added that methodologies might need to be developed to obtain relevant quantitative and qualitative data, though some of which might not be readily available such as productivity, with a view to facilitating objective assessments. Where appropriate, performance management tools such as Balanced Scorecard might be helpful.

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[RJ left the meeting at this juncture.]

4.6 Tentative Work Plan for Year 2011

Members took note of the Paper CIC/ENT/P/025/10.

Members suggested promoting the use of Building Information Modelling ("BIM") to industry stakeholders as its functions to generate three-dimensional and digital representation of building data could effectively improve coordination throughout the project lifecycle. It was also noted that the Housing Department ("HD") had started to pilot the use of BIM for a couple of years and Ms Connie YEUNG kindly consented to arrange a presentation to share HD's experience with Members.

CYG

A Member suggested adding a sub-item of "review the effectiveness of the adoption of the Guidelines on Trip Ticket System for Disposal of C&D Materials in Private Sector Works" to the work plan. The CIC Secretariat reported that a "feed-back" mechanism would be developed to collect views from stakeholders regarding the implementation of the CIC guidelines.

[Post-meeting notes: the revised work plan is given at Annex A.]

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4.7 Commitment towards Sustainable Urbanisation (SU) in Hong Kong – Construction Industry Perspective

Members took note of Paper CIC/ENT/P/022/10 and agreed to defer the discussion of that research proposal pending the finalisation of CIC Research Funding Application Procedures.

4.8 Any Other Business

Nil.

4.9 Tentative Date of Next Meeting for 2010

7 October 2010 (Thursday) at 2:30 pm at Hong Kong Construction Association, 16/F, 180 – 182 Hennessy Road, Wanchai, Hong Kong.

All to note

There being no further business, the meeting was adjourned at 5:10 pm.

Committee on Environment and Technology Work Plan
August 2010

Task Ref. No.	Task	2010						2011												
		7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
A. Review of Construction Standards																				
A. 1	Publish the Summary Report on Review of Local Construction Standards			■																
A. 2	Conduct annual review of updates on construction standards																			
B. Construction-related Research and Development (R&D)																				
B. 1	Identify R&D projects																			
B. 2	Develop strategy on R&D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
B. 3	Implement the strategy																			
B. 4	Organise a forum "Quality and Competitiveness through Technical Excellence"																			
B. 5	Organise a forum on prefabricated construction																			
C. Research on Adhesion Technologies for External Wall Tiles and Rendering																				
C. 1	Conduct the research study	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
C. 2	Submit a review report																			
C. 3	Submit a study report																			
C. 4	Submit the draft design and construction guidelines																			
D. Research on Establishing a Hong Kong Based Carbon Labelling Framework for Construction Materials																				
D. 1	Conduct the research study																			
D. 2	Submit an interim report																			
E. Research on River Sand Substitutes																				
E. 1	Define scope of research, prepare research brief and funding application	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
E. 2	Commission a research institute to conduct the research																			
E. 3	Conduct the research study																			

Task Ref. No.	Task	2010						2011											
		7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
F. Initial Key Performance Indicators (KPIs) for the Construction Industry																			
F. 1	Prepare a set of KPIs for benchmarking the performance of Hong Kong construction industry	■						■											
F. 2	Publish the KPIs							■											
G. Managing Disposal of Construction & Demolition (C&D) Materials																			
G. 1	Finalise the draft Guidelines on Trip Ticket System for Disposal of C&D Materials in Private Sector Works	■																	
G. 2	Publish the Guidelines							■											
G. 3	Monitor the adoption of the Guidelines							■											
G. 4	Explore the feasibility of using of Global Positioning System (GPS) to keep track of the movement of construction and demolition waste disposal trucks							■											
H. Radio Frequency Identification (RFID)																			
H. 1	Explore application of RFID in construction material management and movement of materials	■						■											

Legend
 : ■ schedule
 ■ on-going task