# **Construction Industry Council**

# Committee on Environment and Technology

Meeting No. 005/11 of the Committee on Environment and Technology for 2011 was held on 10 November 2011 (Monday) at 2:30 pm at 15/F, Allied Kajima Building, 138 Gloucester Road, Wan Chai, Hong Kong.

Present:	Conrad WONG Wai-wah HO Jan-ming KO Andrew CHAN James KWAN Wo-hei LAM Kam-hung YU Joseph LEE Jonathan LEUNG Choi-kai AU Dan FUNG Clifford CHENG Peter LEE Tat-tong CHEUNG Ping-wai CHOW Pun-hing HO Russell JONES	(CW) (WWH) (JMK) (AC) (YCK) (WHL) (KHY) (HWL) (JL) (CKA) (DF) (CC) (PL) (TTC) (PCH) (PHH) (RJ)	Chairman Development Bureau Director of Buildings Environmental Protection Department Housing Department The University of Hong Kong Hong Kong Institute of Surveyors Hong Kong Construction Industry Employees General Union Hong Kong Federation of Electrical and Mechanical Contractors Hong Kong Construction Association
In Attendance:	Hon-kwok WONG Guiyi LI Ivan WONG Summer LEE Ivan KO	(HKW) (GYL) (IW) (SL) (IK)	Architectural Services Department Senior Manager (Research) Senior Manager (Council Services) 2 Manager (Research) Manager (Council Services) 2
Apologies:	Siu-hung CHAN Hau-wai CHEUNG Ada FUNG Connie YEUNG Derrick PANG Long PANG	(SHC) (HWC) (AF) (CYG) (DP) (LP)	for Permanent Secretary for Transport and Housing (Housing) Housing Department Chun Wo Development Holdings Ltd Construction Site Workers General

Union

Wai-wai, YU

(WWY)

# **PROGRESS REPORT**

**Action** 

## 5.1 **Confirmation of the Progress Report of the Previous Meeting**

Members took note of Paper CIC/ENT/R/004/11 and confirmed the progress report of the last meeting held on Monday, 5 September 2011 at 15/F, Allied Kajima Building, 138 Gloucester Road, Wan Chai, Hong Kong.

#### 5.2 Matters Arising from the Previous Meeting

- 5.2.1 Four Working Group meetings on Strategic Implementation of Prefabrication and Modular Construction were scheduled. The finding/ outcome would then be reported to Com-ENT.
- 5.2.2 Council Members expressed their support to the following directives set forth in Com-ENT Meeting No. 004/11 for the Research on Adhesion Technology for External Wall Tiles:
  - 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. 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 and Chairman reiterated that it is not recommended using "reference document" to form part of contract/ tender document in a construction project;
  - 4. a further study might be necessary to further address the concern of HKCA;

The Research on River Sand Substitutes was commenced 5.2.3 on 1<sup>st</sup> November 2011. The Inception Report would be submitted in early December 2011 to the Task Force.

> HKU agreed, in principle, to extend the work scope (with no cost implication) to (i) carry out limited laboratory test to justify the argument in the research if necessary; (ii) carry out work which did not mentioned in the Study Brief, if needed.

Discussed under Agenda Item 5.3 5.2.4

#### **Research on Establishing a Hong Kong Based Carbon Labelling** 5.3 **Framework for Construction Materials**

Members took of CIC/ENT/P/030/11, note the Paper CIC/ENT/P/031/11 and CIC/ENT/P/037/11.

CIC Secretariat further elaborated that six selected materials for carbon auditing frameworks in this stage were:

- 1. cement;
- 2. reinforcing bar;
- 3. structural steel;
- 4. glass;
- 5. aluminium;
- 6. ceramic tile.

Due to researcher's change of personnel, the researcher would need an extension of time for 2 months. A briefing session conducted by the researcher would be arranged in next Com-ENT meeting.

GYL

#### Key Performance Indicators (KPIs) for Construction Industry 5.4

Members took note of the tabled Paper CIC/ENT/P/038/11.

The KPIs would be rolled out in 3 stages according to the KPI Launching Plan which tied in with the availability of existing data and data collection programme.

# **KPI Refinement**

After first stage of data collection, for easy reference, Sub-KPI numbers were assigned; and, refinement of five KPIs were proposed:

# KPI No. P3 – Construction Cost Index

*Refinement:* not to publish the index for whole industry in phase 1. *Reason:* no cost index for whole industry.

# KPI No. P6 – No of Manual Workers Engaged per HK\$1,000,000 Gross Value of Construction Works (at Construction Sites)

*Refinement:* (i) qualification to "at construction site"; (ii) not to publish RMAA works in phase 1.

*Reason:* (i) align data definition of data source; (ii) no RMAA works data.

# KPI No. HS1 – Reportable Industrial Accident Rate per 1,000 Manual Workers

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KPI No. HS2 – Fatal Accident Rate per 100,000 Manual Workers

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# **KPI No. HS3 – Number of Summonses Convicted per HK\$100,000,000 Gross Value of Construction Works**

*Refinement:* publish as "new works" without breaking down into "civil works" and "building works".

Reason: no data breakdown from Labour Department.

*Remark:* data for private sector and public sector would only be published upon Labour Department's permission.

Chairman recommended the refinements were acceptable at this stage and further amendment in future might be needed. Members had no objection to this recommendation.

A Member enquired that the qualification "(at construction sites)" was provided for the definition of KPI P6 but not for the other KPIs. CIC Secretariat would clarify this point after the meeting. *[Post Meeting Note: CIC Secretariat clarified that:* 

1. The "manual workers" referred in the KPIs (P6, P7, HS1, HS2) are the "manual workers" at construction sites.

## CIC/ENT/R/005/11

#### **Action**

2. For P6 (number of manual workers engaged per HK\$1,000,000 gross value of construction works carried out at construction sites), the qualification "(at construction sites)" is for the "gross value of construction works". In this case, the "gross value of construction works at construction sites" is used to calculate the productivity of manual workers. Noted that it is different from the "gross value of construction works for the whole industry" which should be the sum of "gross value of construction works at locations other than sites".]

# **Report Format**

The report format was made reference to "UK Industry Performance Report" which mainly includes: Summary Table (with 10 years rolling data), Group Trend Graphs, Individual KPI Trend Graphs, Source of Data, and Construction Industry Performance with respect of Overall Performance, Productivity, Health & Safety, Manpower, and Dispute Resolution.

About the report format, Members suggested:

- 1. Executive Summary should be placed at the front of the report;
- 2. footnote regarding the kick off date of Minimum Wages should be given to construction industry salary data;
- 3. the report should present the most updated data.

CIC Secretariat stated that the data update would depend on the data availability – about 50% of data would be available in first quarter of next year; about another 50% of data being available by end August of the following year; and, only one data, Construction Floor Area, would be available in December of following year. In this regard, the earliest publication date of a report would be in September of the following year leaving out Construction Floor Area which would only be updated in the year after the following year. Consequently, the report based on the data of 2011 would be published in September 2012.

Members agreed that, before publication of KPIs, independent/ third party quality assurance/ verification was necessary.

Chairman suggested that, in order to have pleasant report presentation, graphics in the report should be designed by professional graphical designer.

# 5.5 Working Group on Building Information Modelling

Members took note of the Paper CIC/ENT/P/032/11 and the views were:

- 1. The Working Group should firstly focus on overall implementation strategy and timeline instead of technical problem;
- 2. The implementation should be driven and taken lead by upstream entities (e.g. developer/ Housing Authority/ Architectural Services Department (ArchSD)/ etc) instead of downstream entities (e.g. contractor/ software provider);
- 3. Long term support and commitment by upstream entities were required; however, currently the committed organisations/ DevB corporates were limited. DevB agreed to enquire ArchSD regarding their views on the adoption of BIM in their construction projects;
- 4. The adoption of BIM in civil works and simple design buildings should be also explored.

After much deliberation, it was agreed to have the Working Group:

CIC Secretariat

- 1. To recommend implementation strategies and roadmap for adopting BIM in construction industry in Hong Kong;
- 2. To consider the limitations of using BIM and framework for the corresponding solutions;
- 3. To realise the views of major developers, DevB/Works Departments, MTR and Housing Authority on the use of BIM in their respective projects.

## 5.6 Update on Review of Construction Standards

Members took note of the Paper CIC/ENT/P/033/11.

DevB reported that Works Departments like Highways Department, Water Services Department, Drainage Services Department, and Buildings Department had already updated/started updating their own design manuals and practices notes.

DevB also stated that Highways Department, Water Services Department, Drainage Services Department were conducting a consultancy study on the use of Eurocode and would carry out briefing to update relevant consultants of the revision made.

Members suggested CIC could act as a centre point to stock-take **CIC** and disseminate the update on those standards to the industry so as to increase the traceability and transparency.

#### 5.7 Tentative Work Plan of Year 2012

Members took note of the Paper CIC/ENT/P/034/11.

Due to additional tasks of BIM and Prefabrication and Modular Construction in 2011, Members had no strong view on deferring tasks of Managing Disposal of C&D Materials with GPS and RFID. Members were invited to suggest topics of seminars in 2012.

Members suggested that the timeline of the proposed tasks should focus on 2 years' time windows, i.e. 2012 and 2013.

#### 5.8 **Overloading of Dump Trucks**

Members took note of the Paper CIC/ENT/P/035/11.

Members suggested CIC disseminating short message to the concerned parties in the way of "alert" which is similar to Com-CSS's "Safety Alert". CIC Secretariat will draft the "alert" for Members' comment.

CIC Secretariat

Members reminded that consent should be obtained from DevB and EPD before dissemination.

#### 5.9 **Tentatively Meeting Schedule for Year 2012**

Members took note of the Paper CIC/ENT/P/036/11 and the tentative meeting schedule in 2012.

#### 5.10 Any Other Business

- 5.10.1 Members took note of the tabled Paper CIC/ENT/P/039/11 on Research Policy and expressed their views as below:
  - 1. the action party of contract administration and management were missing though section 7 was about the execution;
  - 2. the application procedures initiated by CIC and that by research institutes was significantly unbalanced. CIC Secretariat explained that they were essentially the same because not all the internal procedures for CIC initiated projects were stated in the document;
  - 3. the purpose of requesting financial position of a research institute was not clear;
  - 4. the normal treatment of Intellectual Properties (IP) right in research field was in the way of sharing between research institutes and funding support organisation; however, the proposed 100% IP ownership by CIC was definitely discouraging the application. CIC Secretariat remarked that the purpose of getting 100% IP ownership was to ascertain the free distribution of the research among the industry without limitation;
  - 5. generally, research institutes would not surrender the right of indemnity;
  - 6. ambiguity role and function of CIC Secretariat and Com-SPS in screening and assessment process;
  - 7. to encourage application, CIC might consider providing funding support in the way of sponsorship which involved lesser CIC's participation in those research.

#### CIC/ENT/R/005/11

#### **Action**

After deliberation, Chairman requested CIC Secretariat to **CIC** arrange a separate meeting to discuss the proposed policy in detail with universities.

# 5.11 Tentative Date of Next Meeting for 2012

12 January 2012 at 2:30 pm at the CIC Headquarters, 15/F, Allied All to note Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong

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