# **Construction Industry Council Committee on Construction Safety**

Meeting No. 001/15 of the Committee on Construction Safety was held on Wednesday, 18 March 2015 at 2:30pm at Meeting Room No. 1, CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wan Chai, Hong Kong.

Present:	CHEUNG Hau-wai	(HWC)	Chairman
	CHOW Luen-kiu	(LKC)	
	HUI Siu-wai	(SWH)	Director of Buildings
	LAI Chi-wah	CWLi)	
	Lawrence NG	(LN)	
	WONG Sze-chun	(SCW)	
	CHAN Sau-kit, Allan	(SKC)	Chairperson of Task Group on Application of Innovative Design to Enhance Construction Safety (TG-IDS)
	Victor KWONG	(VK)	Chairperson of Informal Task Force on Site Safety Incidents (ITF-SSI)
	Francis WONG	(FW)	Chairperson of Task Force on Site Housekeeping (TF-SHK)
	LAM Tat-ming, Terence	(TmL)	Development Bureau (DevB)
	Joel CHAN	(CSC)	Hong Kong Institute of Architects, Authorised Person (HKIA, AP)
	WONG Kwok-keung	(GtT)	Hong Kong Federation of Electrical and Mechanical Contractors (HKFEMC)
	Winson YEUNG	(WY)	Occupational Safety and Health Council (OSHC)
	Steve HOWARTH	(SeH)	MTR Corporation (MTRC)
In Attendance:	CHAN Ka-lai	(KLiC)	Labour Department (LD)
	YEUNG Wai-ming	(WMYg)	Buildings Department
	Timothy LAU	(TyL)	Hong Kong Housing
			Authority (HKHA) (On Behalf of Ms. Ada FUNG)
	Victor WONG	(VWg)	Senior Manager

### CIC/CSY/R/001/15 (for discussion)

	Angela YUEN Sally LEUNG Serina LAU	(AaY) (SYLg) (SLau)	(Council Services) Manager (Council Services) Manager (Council Services) Assistant Manager (Council Services)
Presenters:	Albert CHAN	(AtC)	Hong Kong Polytechnic University (PolyU)
	Patrick TANG	(PT)	Hong Kong Construction Association
	Jimmy NG	(JyN)	Hong Kong Construction Association
	Tommy LEUNG	(TyLg)	Mercadoso Solution Associates Limited
	Dorothy CHUNG	(DyC)	Mercadoso Solution Associates Limited
	Cloudy WAN	(CyW)	Mercadoso Solution Associates Limited
Apologies:	Ada FUNG	(AF)	Chairperson of Task Force on Site Safety of Working in Lift Shaft (TF-WLS)
	LAU Chi-kin	(CKiL)	Chairperson of Task Force on Review of Major Construction Method Statements (TF-CMS)
	LI Chi-leung	(CLL)	Chairperson of Task Force on Work Safety of Repair, Maintenance, Alterations and Additions (RMAA) Sites (TF-RMA)
	William NG	(WN)	Hong Kong Federation of Insurers (HKFI)
	WONG Wai-man	(WMW)	Construction Site Workers General Union (CSWGU)
	Thomas CHAN	(TsCn)	Labour Department (LD)
	CHENG Hung-leung	(HLC)	Drainage Services Department (DSD)

#### PROGRESS REPORT

**Action** 

## 1.1 Confirmation of the Progress Report of the Com-CSY Meeting No. 004/14 held on 18 December 2014

Members took note of Progress Report CIC/CSY/R/004/14 and confirmed the Progress Report of the last meeting held on 18 December 2014.

### 1.2 Matters Arising from the Previous Meeting

Agenda item 4.7 The Guidelines on the Implementation of "P" and "N" Caring Programme have been approved by CIC on 6 February 2015 and it was published on 5 March 2015.

Agenda item 4.12 Details were reported under Agenda Items 1.8 and 1.9.

Agenda item 4.14 CIC Secretariat arranged a visit to 4 training centres of Hong Kong on 5 February 2015.

Members of Com-CSY appreciated the training facilities there and enjoyed a fruitful visit.

# 1.3 Progress of the Task Group on Application of Innovative Design to Enhance Construction Safety

SKC and AaY briefed Members on the paper CIC/CSY/P/001/15 regarding "Progress of the Task Group on Application of Innovative Design to Enhance Construction Safety".

Members of the task groups provided 11 trial run venues for Rear RFID Sensing/Alarm System for Vehicles while 7 trial run venues for Safety Belt Engagement Sensing System.

The first meeting of the Working Group was held on 4 March 2015 for the details arrangement on the trial run.

3 sets of RFID device reverse vehicle system prototype would be provided in May 2015 while the set of modified sensor prototype for the scissor working platform would be completed in July 2015 if

possible. The trial run would be most possibly commenced from June 2015 after the prototype has been completed.

Regarding the Safety Belt Engagement Sensing System, the Working Group would explore the possibility of other type of construction sites/working area such as the use of gondola and truss-out scaffolding for repair and maintenance works.

The CIC Secretariat would further coordinate with the construction sites for the revised trial run schedule.

Members took note of the progress of the Task Group on Application of Innovative Design to Enhance Construction Safety.

(*KLiC* and *LN* joined the meeting at 2:40pm)

### 1.4 Progress of the Task Force on Site Safety of Working in Lift Shaft

AaY briefed Members on the paper CIC/CSY/P/002/15 regarding "Progress of the Task Force on Site Safety of Working in Lift Shaft".

Safety Alert No. 001/15 – Safety Use of Vertical Transportation at Construction Sites was published on 14 January 2015.

After the site visit on 22 December 2014, a Task Group meeting was held on 9 February 2015. The next Task Group meeting would be held in April 2015 for further review the content of Guidelines on Builders' Lift.

The CIC Secretariat liaised with LECA and Hong Kong Professional Hoisting Engineering Association (HKPHEA) to arrange another site-visit of Builders' Lift in April 2015 for the members of Task Group.

The drafting of the Guidelines on Builders' Lift was undergoing and targeted to be completed by 2015.

Members took note of the progress of the Task Force on Site Safety of Working in Lift Shaft.

[**Post Meeting Note**: A Task Group meeting would be held on 9 April 2015 and another site-visit of Builder's Lift would be scheduled on 10 April 2015]

### 1.5 Construction Safety Week 2015

AaY briefed Members on the upcoming Construction Safety Week (CSW) 2015 and the Associated Activities to be co-organised by CIC and Development Bureau (DevB) from 27 – 29 May 2015. The main theme for CSW 2015 is "Construction Workers' Health and Safety Leadership", which were consolidating and deepening some key initiatives/ measures promoted between 2012 and 2014.

The Campaign consists of two Phases:

- (a) Promotional activities before the CSW 2015; and
- (b) CSW 2015

The "pre-CSW 2015 activities" would include four Qigong Refresher Courses, two Qigong Train-the-Trainer Courses, Safety Pal, Zero Accident Ambassador Award, Innovative Safety Initiative Award 2015 and Considerate Contractors Site Award Scheme.

The programme of the CSW 2015 would be:

- 27 May 2015: Kick-off Ceremony cum Qigong Display Competition; Construction Safety Week Conference;
- 28 May 2015: Construction Safety Week Site Visit;
- 29 May 2015: 21<sup>st</sup> Construction Safety Week Considerate Contractors Site Award Scheme Award Presentation Ceremony

In the Construction Safety Week Conference on 27 May 2015:

- Representatives from General Administration of Sport of China were invited to be adjudicators in Qigong Display Competition;
- Construction Safety Application would be launched in Kick-off Ceremony;
- The result on safety leadership by the Hong Kong Polytechnic University would also be announced in the Kick-off Ceremony.

The supporting organisations and publicity plan of the CSW 2015 were illustrated as well. Members were invited to take note of and support the organisation of CSW 2015 and the associated activities.

TmL provided supplementary information that the Construction Safety Application with safety and health messages is tailor-made for frontline workers and appealed Members to promote and support this Application.

# **Experimental Learning on Site Safety 2015 (Co-organised event with HKCA)**

AaY briefed Members on the paper CIC/CSY/P/003/15 regarding "Experimental Learning on Site Safety 2015 (Co-organised event with HKCA)"

Experimental Learning on Site Safety 2015 was launched by HKCA in 2013 and is targeted for construction related undergraduates to equip them some safety knowledge before joining the construction industry.

HKCA put the Safety Training Scheme in trial in 2013 with 60 students from Hong Kong Institute of Vocational Education (IVE). In 2014, 7 training classes for 361 students are provided and launched out formally with four more universities/ institutions collaborated, namely the University of Hong Kong (HKU), the Hong Kong Polytechnic University (PolyU), the City University of Hong Kong (CityU) and the Technological and Higher Education Institute of Hong Kong (THEi).

Responses from students and the universities / institutions about the training were very positive and encouraging in the past two years.

The 2015 programme is anticipated to train up 600 students in a budgeted amount of HK\$600,000.

CIC received the invitation from HKCA on 18 December 2014. After discussed with HWC and Mr Christopher TO, Executive Director, CIC would be the co-organizer with HKCA for the captioned event and would contribute half of the expenses.

Members noted that the "Experimental Learning on Site Safety 2015" would be co-organised by CIC and HKCA.

# 1.7 Experimental Learning on Site Safety 2015 (Co-organised event with HKCA)

(PT and JyN joined the meeting at 3pm)

PT and JyN of HKCA gave a presentation on the Experimental Learning on Site Safety 2015.

Members welcomed the co-operation. After deliberations, members suggested to consider the possibility to include other trades of participants such as Registered Safety Officers and frontline

supervisors from sub-constructors in the future.

(PT and JyN left the meeting at 3:30pm)

### 1.8 Progress of Administration Charges for Reporting of Site Accidents

AaY briefed Members on the paper CIC/CSY/P/004/15 regarding "Progress of Administration Charges for Reporting of Site Accidents".

The preliminary findings were provided by the consultant "Mercado Solutions Associates Ltd" (MSA) in December 2014. Meeting with Development Bureau (DevB), Hong Kong Housing Authority (HKHA) and Labour Department (LD) was held on 9 February 2015 for exploring the possibility to improve the current situation and the way forward.

The survey indicated that less than 20% of main contractors require administration charges for reporting site accidents and processing EC claims. The detail findings were presented by MSA under Agenda Item 1.9.

To remind workers have rights to report the accident, CIC and LD have published a poster of "Five Steps for Employees' Compensation Claims" in April 2014 and distribute via Hong Kong Construction Association (HKCA) to some 300 major construction companies. CIC and LD would continue working hand in hand to further promote and educate workers through different channels.

DevB and HKHA would explore any possibility to minimise the site administration charge through contract requirement or other possible way.

Members took note of the progress of Administration Charges for Reporting of Site Accidents.

### 1.9 Administration Charges for Reporting of Site Accidents

(CyW, DyC and TyLg joined the meeting at 3:30pm)

The consultant "Mercado Solutions Associates Ltd" (MSA) presented the detail findings on the Administration Charges for Reporting of Site Accidents.

HWC reminded Members that the content of the presentation is confidential.

After deliberations, Members suggested MSA to analyse the findings and recommend a suggestion. HWC explained that MSA was responsible for conducting the survey and report the survey findings only. Members agreed to invite representatives from DevB, LD, HKHA, HKCA, Hong Kong Construction Industry Employees General Union (HKCIEGU) and Hong Kong Construction Sub-Contractors Association (HKCSA) to form an ad-hoc Working Group to discuss the follow-up actions on the findings.

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(CyW, DyC and TyLg left the meeting at 4:15pm)

See item 1.13 which was reported before item 1.10

### 1.10 Progress of the Informal Task Force on Site Safety Incidents

VK, the Chairperson of the Informal Task Force on Site Safety Incidents (ITF-SSI) gave a verbal report on the progress of the ITF-SSI.

VK reported that the Construction Safety Poster No. P-CSY-001-15 was discussed under Agenda Item 1.11. LKC suggested finding a suitable speaker for HKCIEGU to conduct tool box talk in lunch time for workers in marine related construction sites. CIC Secretariat would follow up the matter.

Members took note of the progress of the ITF-SSI.

#### 1.11 Construction Safety Poster No. P-CSY-001-15

VK, the Chairperson of the ITF-SSI briefed Members on the paper CIC/CSY/P/005/15 regarding "Construction Safety Poster No. P-CSY-001-15".

Com-CSY suggested to prepare a Construction Safety Poster related to Work Safety on Vessels during the Com-CSY Meeting No. 004-14 held on 18 December 2014. Subsequent to the meeting, and with the support and input from VK, the Chairperson of the Informal Task Force on Site Safety Incidents (ITF-SSI), the "Construction Safety Poster No. P-CSY-001-15 – Work Safety on Vessels and Construction Over Water" was drafted. The draft Poster was sent out to Members of

the Informal Task Force and Marine Department for comment on 5 March 2015.

The latest version of the Poster No. 001/15 (incorporated comments from ITF-SSI) was made and tabled.

After deliberations, Members endorsed in principle the Construction Safety Poster No. P-CSY-001-15 with some minor amendment, such as simplifying the wordings of the Poster.

[**Post Meeting Note**: Final version of the Poster No. P-CSY-001-15 was formally published on 22 April 2015 (after incorporated appropriate comments received from members of Com-CSY after the meeting).]

### 1.12 Rename the Task Force on Review of Major Construction Method and Revise the Terms of Reference of the Task Force

SYLg briefed Members on the paper CIC/CSY/P/006/15 regarding "Rename the Task Force on Review of Major Construction Method and Revise the Terms of Reference of the Task Force".

In response to the comments from the Com-CSY and further discussion with Chairman of the Com-CSY, CKiL, the Chairperson of the Task Force on Review of Major Construction Method Statements (TF-CMS) made an overview on the Terms of Reference. To suit the latest requirement and enable the Consultancy Services to be carried out, it was suggested to rename the TF-CMS and revise its Terms of Reference where necessary.

The Name of the Task Force was suggested to revise as "Task Force on Review of Working Procedures for Safety" (TF-WPS) while the TERMS OF REFERENCE was recommended to replace the "Method Statement" by "Working Procedures".

Since the nature of the TF-WPS was similar to TF-CMS, it was suggested to remain the existing Chairmanship and Membership of the TF-CMS to TF-WPS

After deliberations, Members endorsed to rename the existing Task Force as "Task Force on Review of Working Procedures for Safety" (TF-WPS) and revise its Terms of Reference. Besides, the current Membership List of the Task Force would retain.

The CIC Secretariat would then inform the members of TF-WPS

(previously named as TF-CMS) the updated changes and prepare the tender document of the Consultancy Services afterwards.

### 1.13 Experience Sharing on Pilot Medical Examination Scheme for Construction Workers

(AtC joined the meeting at 4:15pm)

AtC gave a presentation on the Pilot Medical Examination Scheme (PMES) for Construction Workers, which included the current findings on demographics, BMI, pain experience, exercise habits, clinical results and also the way forward.

This commissioned research project by CIC was started from July 2014 with aiming to analyse construction workers' general health conditions. As of Jan 2015, 500 workers interviewed and 3,000 workers participated in PMES.

In the findings, only about 1/4 workers (27.4%) have active pain symptoms (in past 24 hours). In general, pain experience increases with age. Pain experience decreases as education level increases. 2% of the young workers and 15% of the older workers had high blood glucose respectively. In overall, 7% of workers have high cholesterol. Workers who have high cholesterol levels tend to be overweight.

SeH stated MTR has carried out similar studies before and would share their findings with AtC for reference.

Members took note of the presentation on the PMES.

(AtC and SKC left the meeting at 4:45pm)

# 1.14 Experience Sharing on Safety Visits (Construction Vehicles in Europe & Trade Fair for Construction Machines, Construction Vehicles and Equipment in Mainland China)

AaY shared the experience on Safety Visits in Europe and Mainland China.

HWC, LKC and AaY were invited by Hong Kong Professional Hoisting Engineering Association (HKPHEA) to participate in the Safety Visit on Construction Vehicles in Europe organised by the HKPHEA from 27 Sept to 9 Oct 2014.

During the stay in Europe, the following visits were arranged:

- Visit IAA Exhibition in Hannover, Germany;
- Visit M. BENZ Factory in Stuggart, Germany;
- Visit 4 no. of FASSI Factories in Bergamo, Italy; and
- Visit 2 no. of SCANIA Factories in Sweden

Besides, HWC and AaY participated in a safety visit to the 7th International Trade Fair for Construction Machinery. Building Material Machines, Construction Vehicles and Equipment in Shanghai from 24 to 27 November 2014 arranged by the HKPHEA.

After the visit, they learnt that:

- Most trucked-mounted cranes in HK an arm from Manufacturer X mounted on a chassis from Manufacturer Y, stabilized by outriggers from Manufacturer Z;
- The Combination of arm, chassis and outrigger is not often supported by proper engineering design;
- There seems to be no established standard design in HK and the arm can be rear-, middle- or fore-mounted; and
- The warning signal on lifting arm may not fully reflect overall crane stability.

For the improvements on the situation in Hong Kong, they suggested to consider:

- To ensure proper engineering design for combination of arm, chassis and outrigger;
- To review the existing inspection/inspection form;
- How to apply EN 12999 in HK; and
- To explore possibility to develop an over-turning advance warning system.

After deliberations, Members suggested to invite Labour Department (LD), Transport Department (TD), Hong Kong Tower Crane Engineering Association (HKTCEA), engineers and other relevant parties to form a Task Group to discuss the possibility way of improvements for the mobile cranes.

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#### 1.15 Any Other Business

### (i) "Build A Better Hong Kong" Variety Show

AaY reported that a "Build A Better Hong Kong" Variety Show which would be jointly organised by the CIC and the Development

Bureau would be aired on TVB Jade at 7:30pm – 8:30pm on Saturday, 28 March 2015. Shooting and recording of this show would be held at TVB City at 8pm-10pm on 23 March 2015. Tickets would be given to available Members after the meeting.

Some Members expressed queries on the expenditure portion arrangement by Construction Charity Fund for the Construction Industry Variety Show and requested CIC Secretariat to inform relevant parties about their concerns.

### (ii) The Lighthouse Club Hong Kong Safety Awards and Annual Cocktails 2015

AaY reported that The Lighthouse Club Hong Kong Safety Awards cum Annual Cocktails 2015 was held on 20 March 2015. 24 vacancies were available and interested members were invited to inform the CIC Secretariat to reserve a place.

### (iii) Safety Experience and Training Centre (SETC) for the Construction Industry

SYLg briefed Members on the tabled paper CIC/CSY/P/007/15 regarding "Safety Experience and Training Centre (SETC) for the Construction Industry".

In 2014, some Members of the Com-CSY visited the GS Engineering & Construction Safety Innovation School in Korea (during the Benchmarking Study Tour organised by the Occupational Safety and Health Council) and subsequent visit to the training centres in Taiwan (during the Safety Exchange Visit organised by the Hong Kong Federation of Occupational Safety and Health Associations) and had hands-on experience on the safety training facilities there.

After the exchange visits, Members of Com-CSY agreed traditional training modes have been adopted for years and it is now time for the construction industry to step a breakthrough and establish a trend in practical training that would apply Construction Accident Simulation Experience components in the safety training. It is worthwhile to set up a Safety Experience and Training Centre in Hong Kong.

The main objectives of SETC are:

- (a) To shape it to a centre of excellence in the safety stream;
- (b) To maximise the effect of education by experiencing live-on site activities;

- (c) To provide up to date construction trainings;
- (d) To be a showcase of good practices; and
- (e) To escalate the safety awareness and safety standard of the construction industry

The preliminary target participants would be CIC related training courses' students, Contractors from Government Projects, and Workers.

The SETC would be differentiated from other existing training centres by applying Construction Accident Simulation Experience in the safety training. The SETC would be divided by different zones All Zones would be decided with reference to the most common fatal accident types and hazardous areas in construction sites. The main purpose is to acknowledge the major cause of accidents and identify solutions to prevent accidents from occurring again.

The key training scopes such as Working at Height experience, Striking by Moving / Rotating Objects experience, Electrocution experience and Accidental Falling Experience were illustrated.

To set up the SETC, there were three Options proposed by the CIC Secretariat for consideration:

- 1. By CIC
- 2. By Main Contractors as per Contract Requirement
- 3. Separately by CIC and Main Contractors

A comparison for the above three options were discussed in details during the meeting. The Layout, Programme, Procurement Approach, Centre and Operation Management for Option 1 were illustrated as well.

Members discussed and agreed there was urgency for the construction industry of HK to set up a SETC. After deliberations, Members unanimously supported CIC to pursue setting up the SETC. The reasons for Members of Com-CSY to support Option 1 (i.e. by CIC) to establish the SETC are summarised below for easy reference:

(a) If Government specifies Construction Accident Simulation Experience components Training Requirement in Contracts, only Mega Contractors will likely be able to fulfil such requirement. If CIC has set up the SETC, the coverage spectrum of companies and project scales will be larger and wider. Furthermore, it can be extended from small, medium

- to mega size companies, from small, medium to large scale Projects and Repair, Maintenance, Alterations and Additions (RMAA) Work as well;
- (b) Coverage of a more diversified working tiers, ranging from junior grades to Managerial Levels and CEO;
- (c) Coverage of facilities will be more comprehensive and full range;
- (d) As the leader of the construction industry, CIC is the most appropriate body to take up the SETC by making use of its strong communication platform with various stakeholders;
- (e) The life span of facilities will be more long-lasting (much longer than the Contract Period of Projects) and thus more beneficial to the construction industry;
- (f) Resources can be centralised, fully utilised and more cost effective;
- (g) As a Centre for Construction Workers Registration, CIC can help to promote and facilitate workers to conduct the training in SETC;
- (h) A role model will be set up for the construction industry;
- (i) The public image and professional status of the construction industry can be further elevated; and
- (j) BCA of Singapore has already established its own Academy with a Centre for Workplace Safety and Health (CWSH). CIC, with similar nature of BCA, is far lagging behind, thus should speed up the process to start off the construction of SETC without further delay.

HWC stated the work demarcation of the CIC Secretariat and Com-CSY. All procurement related matters would be done by the CIC Secretariat.

(SCW left the meeting at 5:40pm)

#### (iv) Maintenance of air-conditioners

TmL reported that Development Bureau and Architectural Services Department have conducted a preliminary study on the design for maintenance location of air-conditioners after receiving the requests from construction practitioners. Suggestions would be passed to the Task Force on Work Safety of Repair, Maintenance, Alterations and Additions (RMAA) Sites for follow up.

TmL

#### (v) Consultancy Study from Mckinsey

HWC reported that CIC has invited Mckinsey to conduct a consultancy study for construction industry. Mckinsey would

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come to present in Com-CSY Meeting No. 002/15. Members requested Mckinsey should provide relevant information to the members before the Com-CSY meeting which would be held on 30 June 2015.

Secretariat

### (vi) Com-CSY Membership Update

AaY reported that Ir Dr Derrick PANG would no longer serve Council and Com-CSY of CIC. HWC expressed the gratitude for his contribution and support to the Committee in the past.

### (vii) Summary on Fatalities of Construction Industry for 2014

VK expressed concern on fatalities of construction industry for 2014. HWC invited LD to present a summary in the upcoming Com-CSY Meeting No. 002/15 which would be held on 30 June 2015.

LD

### 1.16 Next Meeting

30 June 2015 (Tuesday) at 2:30 pm at Meeting Room No. 1, CIC Headquarters.

There being no further business, the meeting adjourned at 6:15pm.

CIC Secretariat April 2015