

**Construction Industry Council**  
**4<sup>th</sup> Progress Report of Committee on Construction Site Safety**

**Purpose**

This paper outlines the main points discussed at the 4<sup>th</sup> meeting of the Committee on Construction Site Safety held on 14 December 2007. The record of attendance is at Annex A.

**Issues Discussed**

2. Members discussed the following items –
- promoting adoption of Pay for Safety Scheme (PFSS) in private sector contracts;
  - permanent safety features;
  - Informal Task Force on Tower Crane;
  - 2<sup>nd</sup> Summary Report of Informal Task Force on Site Vehicles and Mobile Plant;
  - 1<sup>st</sup> Summary Report of Informal Task Force on Working in Hot Weather;
  - 1<sup>st</sup> Summary Report of Informal Task Force on Behaviour Aspects of Construction Site Safety; and
  - Informal Task Force on Co-operation with Property Management Companies.

**Progress on Matters Arising from 3<sup>rd</sup> Meeting on 11 October 2007**

3. Members noted the following –

Paragraph 31(a)

CIC would be requested to write to Government proposing the strengthening of LD's staff establishment for taking enforcement actions in relation to working at height in repair and maintenance

(R&M) works so as to cope with the additional workload resulting from the ageing of buildings and the Mandatory Building Inspection Scheme being taken forward by BD;

Paragraph 30(b)

The Buildings (Amendment) Bill 2007 was introduced into the Legislative Council on 5 December 2007 to rationalize the building control system in respect of the carrying out of minor works. The current target was to complete the legislative process by mid-2008;

Paragraphs 30(c), (d) and (e)

The matters recorded in these paragraphs would be discussed in subsequent agenda items.

**Promoting Adoption of PFSS in Private Sector Contracts**

4. The PFSS was introduced into public works contracts and public housing contracts in 1996 and 2000 respectively for the purpose of removing important safety measures (such as provision and updating of safety plans and engagement of safety officers) from competitive tendering through paying for them under pre-priced items in bill of quantities. REDA and HKCA launched the Safety Partnering Programme in June 2005 aiming to raise the safety performance of private sector contracts through introducing measures adopted with proven results by the public sector, in particular the PFSS. At the end of July 2007, 38 sites had joined the programme with 19 sites active at present.

5. PFSS had been proven to be effective in enhancing site safety. The accident rate for public works contracts dropped 77% from 50.3/1,000 workers in 1996 to 13.2/1,000 workers in 2006. The accident rate for public housing contracts fell 87% from 86/1,000 workers in 2000 to 11.5/thousand workers in 2006. The average accident rate for sites participating in the Safety Partnering Programme was 21.26/1,000 workers in 2006. The 2006 figures for public working and public housing contracts were almost five times lower than the overall average of 64.3/1,000 workers for the whole industry.

6. In view of the proven effectiveness of the PFSS, Members agreed that CIC should be requested to write to industry stakeholders, in

particular developers, contractors and professionals, encouraging them to adopt the PFSS. HKFI would consider whether adoption of PFSS could be taken into account in assessing insurance premium so as to provide financial incentive for the scheme.

### **Permanent Safety Features**

7. The Informal Task Force on Permanent Safety Features (TF-PSF) had considered the permanent safety features for enhancing the safety of R&M works carried out at height on external walls of residential buildings and put forward its preliminary findings on gondolas, service platforms and permanent anchorage points.

8. The installation of gondolas in new residential buildings was found to be feasible and their shared use by contractors or owners of individual units could be implemented through simple provisions in Deed of Mutual Covenant (DMC). The capital and recurrent costs were minimal in comparison to the overall construction cost and expenses for building maintenance and management. The safety improvements achieved should be adequate for compensating the reduction of saleable floor area on the roof of buildings. The Task Force would further discuss with industry stakeholders (including BD, REDA, HD and Hong Kong Housing Society) on whether installation of gondolas could be recommended for new buildings.

9. In recent years, service platforms for housing outdoor units of split-type air conditioners were becoming common in new buildings. However, the size of the platforms accepted by the concerned government department for gross floor area (GFA) exemption was not adequate to accommodate the outdoor units and provide adequate working space for executing R&M works inside the building envelope. The Task Force therefore recommended an overall width of 950 mm for service platforms made up of 350 mm for accommodating outdoor units, 500 mm free space for energy efficiency and repair and maintenance operations; as well as 100 mm for railing and toe board. The Task Force would explore with BD, Lands D, Plan D, EMSD and LD on granting GFA exemption for service platform provided in accordance with this recommendation.

10. Permanent anchorage points for providing safe anchorage for safety harness could be an alternative for R&M works executed in locations not accessible from gondolas and service platforms (or in cases where these were not provided). The Task Force had to further consider

the technical and administrative issues for anchorage points before coming up with more specific recommendations on their adoption.

11. BD believed that gondolas should be promoted in the light of the findings of the Task Force. In view of the general industry support for permanent anchorage points, BD would aim to develop practice notes for their design, construction and maintenance. However, caution should be exercised in granting GFA exemptions for service platforms because of the possible impact on the building bulk.

12. On the other hand, HD opined that there should be appropriate flexibility in the recommendations on the three types of safety features, which would not necessarily be appropriate for all types of buildings in Hong Kong. In particular, gondolas were not necessary for public housing blocks because provisions for installation of gondolas on temporary basis for major R&M operations would suffice. There was also concern about the expense of having to engage workers trained in accordance with the Factories and Industry Undertakings (Suspended Working Platform) Regulations to execute R&M works on gondolas.

13. Members also explored the possibility of installing permanent anchorage points in existing buildings and agreed that this should be revisited after the device had been tried out in new buildings.

14. Subject to the foregoing discussions, Members generally supported the recommendations and way forward proposed by the Task Force.

### **Informal Task Force on Tower Crane**

15. The 3<sup>rd</sup> meeting of the Task Force was held on 3 November 2007 to refine the recommendations for enhancing the safety of tower crane operation. The Task Force was conducting industry consultation on the recommendations with a view to submitting the finalized version to CIC by early 2008.

16. LD would encourage the industry to observe the recommended improvement measures by issuing Suspension Notices against non-observance. Incorporation of the measures into the Code of Practice for Safe Use of Tower Cranes could be considered one year later after a thorough review of the effectiveness of the measures.

## **2<sup>nd</sup> Summary Report of Informal Task Force on Site Vehicles and Mobile Plant**

17. The 2<sup>nd</sup> meeting of the Task Force was held on 20 November 2007 to discuss the development of a set of guidelines for dealing with the site safety issues associated with site vehicles and mobile plants and agreed that the outline could be derived from the safety issues listed in a circular letter issued by LD to contractors. These included devising proper site layout plan, conducting risk assessment, formulating safe working procedures and equipping site vehicles and mobile plant with suitable reversing safety devices. The Secretariat would explore with OSHC on whether the proposed guidelines could include specific guidance on the first three subjects.

18. On reversing safety devices, HKCA was conducting a screening exercise on the types of site vehicles and mobile plant that would be suitable and would benefit from CCTV installation and had identified 15 types satisfying these criteria. Seven types were found to be not suitable and 19 types would require further examination. HKCA would complete the exercise and formulate technical guidelines for installation of CCTV.

## **1<sup>st</sup> Summary Report of Informal Task Force on Working in Hot Weather**

19. The Task Force held the 1<sup>st</sup> meeting on 21 November 2007 and agreed that a set of guidelines on the safety measures for working in hot weather could be developed on the basis of the outline at Annex B to provide guidance on the general safety measures and measures for specific circumstances (such as working under direct sunlight). Efforts would also be made to identify suitable indicators for activating the safety measures.

## **1<sup>st</sup> Summary Report of Informal Task Force on Behaviour Aspects of Site Safety**

20. At its first meeting held on 30 November 2007, the Task Force was briefed on major results of a study conducted by the Hong Kong Polytechnic University on the effects of safety climate on construction site safety and the experience of Gammon and CLP Power in implementing behaviour based programmes based on the structured methodology developed by OSHC. The Task Force concluded that behaviour would have profound impact on safety performance and agreed that this aspect should be further explored in relation to

21. Members generally agreed that safety awards would help promote safe behaviour. Involving the family members of workers through giving cake coupons, cinema tickets and inviting workers' household to participate in safety promotion could amplify the effectiveness of award schemes. The promotion of safety culture through education and training would also be crucial. In this regard, appropriate safety contents had already been included in the basic craft skill courses and site supervisor courses of CITA. For professionals, the curriculum for undergraduate courses should seek to cultivate a holistic view on site safety. Drawing workers' attention to the serious consequences of unsafe behaviour could improve safety awareness.

22. Responding to a Member's suggestion that the 5-S method could help in promoting safety culture, OSHC agreed to make a presentation on the subject at the next meeting of the Committee.

### **Informal Task Force on Co-operation with Property Management Companies**

23. Having considered the potential legal liabilities, the Hong Kong Association of Property Management Companies (HKAPMC) would let their members decide whether to acquire horizontal props for shared use by workers engaged in R&M works commissioned by owners of individual units.

24. To inject new impetus into the voluntary referral mechanism introduced in 2004 through joint efforts of LD and HKAPMC to keep a close watch over hazardous operations involved in R&M works, the Task Force would produce a checklist to help frontline property management staff in identifying unsafe conditions. A calendar card showing LD's reporting hotline had also been produced. The Task Force was also planning a publication for raising the awareness of individual owners on their safety responsibilities.

### **Further Actions**

25. The following further actions were agreed –

- (a) CIC would be requested to write to Government proposing the strengthening of LD's staff establishment for taking enforcement actions in relation to working at height in R&M works;
- (b) CIC would be requested to write to industry stakeholders, in particular developers, contractors and professionals, encouraging them to participate in the Safety Partnering Programme;
- (c) HKFI would consider whether adoption of PFSS could be taken into account in assessing insurance premium so as to provide financial incentive for the scheme;
- (d) TF-PSF would conduct further deliberations on gondolas, service platforms and permanent anchorage points along the lines set out in paragraphs 7 to 10; and
- (e) OSHC would give a presentation on the 5-S method at the next meeting.

**CIC Secretariat  
December 2007**

**Committee on Construction Site Safety**

**4<sup>th</sup> Meeting held at 2:30 pm on 14 December 2007  
in Conference Room 1201, Murray Building**

**Record of Attendance**

**Present**

Mr Thomas Kwok	Chairman
Mr James Blake	
Mr CHOI Chun-wa	
Prof J M Ko	
Mr WAN Koon-sun	
Mr H W Cheung	Director of Buildings
Mr C K Tsang	Hong Kong Federation of Electrical and Mechanical Contractors
Mr Philip Chan	Hong Kong Institute of Architects
Mr PANG Long	Hong Kong Construction Site Workers General Union
Mr Charles Wong	Construction Industry Training Authority
Prof Francis Wong	Hong Kong Polytechnic University
Mr William Siu	Hong Kong Bar-Bending Contractors Association
Mr TANG Wah-shing	Occupational Safety and Health Council
Mr Dominic Lam	Hong Kong Federation of Insurers
Mr YU Koon-ching	Hong Kong Safety Supervisors Association
Mr S M Leung	Buildings Department
Mr Philip Chung	Development Bureau
Mr S H Tso	Labour Department
Ms Ada Fung	)
Mrs Terry Ching	) Housing Department



**Absent with apologies**

Mr Thomas Ho

Mr Edgar Kwan

Mr C K Lau

Real Estate Developers Association of  
Hong Kong

Mr Anthony Chan

Hong Kong Construction Association

Mr NG Kwok-kwan

Hong Kong Construction Industry  
Employees' General Union

Mr Ros Lam

Office of the Commissioner of  
Insurance

**In attendance**

**Construction Industry Council Secretariat**

Mr K H Tao

Chief Assistant Secretary for Development  
(Works) 1

Mr Solomon Wong

Assistant Secretary for Development  
(Works) Public Works Systems  
Administration 1

**Outline of Guidelines for Working in Hot Weather**

1. Introduction
2. Risk factors and heat related disorders
3. Working in hot weather
  - (a) General measures
    - (i) work environment
    - (ii) work arrangement
    - (iii) work break cycle and cool down facilities
    - (iv) regular supply of cool potable water
    - (v) suitable clothing
    - (vi) workers' health (including maintaining chemical balance)
    - (vii) first aid procedures and facilities
  - (b) Measures for specific circumstances
    - (i) working under direct sunlight
    - (ii) working under shade but with poor or no ventilation
4. Activation of measures for hot weather working
5. Mandating adoption of safety measures through contractual provisions
6. Impact of very hot weather on construction programme and extension of time