

For discussion on
15 April 2014

Legislative Council Panel on Manpower

Occupational Safety Performance in the Construction Industry

Purpose

This paper briefs Members on the occupational safety performance of the construction industry and seeks Members' views on the measures to enhance construction safety.

Regulatory Framework

2. The Labour Department (LD) safeguards the safety and health of workers through enforcement of the Factories and Industrial Undertakings Ordinance (FIUO) and the Occupational Safety and Health Ordinance (OSHO). In respect of specified processes and plant/machineries in the construction industry, the relevant legislation not only clearly lays down specific safety and health standards and means of compliance, but also prescribes the general duties of an employer (including a contractor) to ensure, so far as reasonably practicable, the safety and health of employees at work, including the provision of safe workplaces, plants and systems of work, as well as the necessary information, instruction, and training and supervision.

3. The FIUO and OSHO provide that :

- (a) employers/contractors shall assess risks in their workplaces and formulate appropriate safety measures with regard to different working environments, job types and work processes;
- (b) employers shall notify LD within a specified period of time accidents resulting in death or incapacity and dangerous occurrences that occurred at their workplaces;
- (c) all persons working on construction sites must have received basic safety training;
- (d) LD is empowered to initiate prosecutions and issue improvement notices

(INs) and suspension notices (SNs): SNs will be issued where any activity at the workplace would cause, or is likely to cause, an imminent risk of death or serious bodily injury to workers; and

- (e) LD is empowered to hold inquiries into occupational accidents and to make regulations and provide practical guidance to assist the industry in complying with relevant safety and health legislation.

4. A number of subsidiary legislation have been made under the FIUO and OSHO to regulate specified work activities and processes (including the use of plants and machineries on construction sites) and to provide for safety management systems to safeguard the occupational safety and health of workers. If duty holders violate the relevant occupational safety and health legislation, the court may impose a fine up to \$500,000 and to imprisonment for 12 months.

Strategy on Occupational Safety

5. Relevant parties, including employers, contractors, relevant professionals, the Government and workers, have responsibilities of promoting work safety and health. The Government has the responsibility of making employers aware of the risks created by the work processes under their control, and of making workers understand the importance of fully co-operating with their employers to avoid risking the work safety of their own and that of other persons. LD enhances the safety culture of the construction industry through inspection and enforcement, education and training, publicity and promotion as well as launching safety accreditation and sponsorship schemes.

Occupational Safety Performance in the Construction Industry

6. With the commencement of a number of mega infrastructure projects in recent years and in anticipation of the continuous construction boom in the foreseeable future, the construction workforce has been on the rise. For new works projects alone, the number of construction site workers has increased by about 60 % from around 50 000 in 2009 to around 80 000 in 2013. In addition, while ageing of buildings, which results in continuous growth in repair, maintenance, alteration and addition (RMAA) works, and development of new buildings would bring about a lot of job opportunities to the construction industry, they pose challenges to work safety. The construction industry records the highest number of fatalities and accident rate among all industries. The industrial accidents statistics of the construction industry over the past five years are provided at Annex 1. A breakdown of the fatal accidents in the

construction industry by type of accident is provided at Annex 2.

7. The 22 fatal accidents in the construction industry in 2013 mainly involved work-at-height (15 cases) and those happened at tunnels or underground works sites (4 cases). Of the 15 work-at-height fatalities, most cases were related to fall of workers from bamboo scaffolds (7 cases), working platforms or temporary support (2 cases) and ladders (2 cases). As at the first quarter of 2014, there were 10 fatal accidents in the construction industry, mainly involving work-at-height (4 cases) and lifting operations (3 cases).

Measures to Enhance Occupational Safety and Health in the Construction Industry

8. LD has in recent years strengthened our efforts in the areas of inspection and enforcement, education and training, as well as publicity and promotion. Moreover, we have launched safety accreditation and sponsorship schemes. We would strive to eliminate work hazards in the construction industry mainly through the following eight measures.

I. Inspection and Enforcement

9. LD conducts surprise inspections to construction sites in accordance with a set of risk-based criteria, including the potential hazards, nature of processes and past safety performance of workplaces.

(A) Stepping up inspections and enforcement actions

10. Apart from conducting over 50 000 regular site inspections each year, LD would from time to time launch special enforcement operations to deter work practices contravening statutory requirements on work safety, particularly those involving high-risk processes. LD would take immediate enforcement actions without prior warning on discovery of breaches of safety legislation. LD has stepped up site inspections and vigorous enforcement actions in the past two years. In the special enforcement operations in 2013, LD conducted around 8 000 special site inspections with over 640 prosecutions initiated and more than 340 SNs and 570 INs issued. The number of prosecutions taken and enforcement notices issued in 2013 increased by over 100% as compared to 2011.

11. Regarding the high-risk processes in the construction industry, including lifting operations, work-at-height and electrical works, LD has adopted the following measures:

- (a) In view of the spate of fatal accidents involving lifting operations in the construction industry in the first quarter of this year, LD has stepped up inspections and enforcement actions, and urged contractors to pay particular attention to work safety involving lifting operations and operation of mobile cranes. We took vigorous enforcement actions against unsafe work practices violating the safety legislation (such as failure to ensure the stability of lifting appliances, failure to ensure the safety of lifting appliances and lifting gear through proper maintenance, regular testing and thorough examination, etc.). In collaboration with the industry, LD will organize a safety seminar on lifting operation in April this year to urge relevant stakeholders to enhance safety measures on lifting operations, and to reiterate the serious consequence of breaching the relevant statutory requirements.
 - (b) Regarding work-at-height safety, LD issued over 1 200 SNs/INs and initiated a total of 866 prosecutions last year. The number of prosecutions taken and legal notices issued in relation to work-at-height safety in 2013 increased by about 50% as compared to 2011. LD is highly concerned about the serious accident that happened on 25 March 2014 involving two workers falling from height while using a tower working platform. We have served SNs to the contractors concerned and are conducting joint investigation into this accident with the Electrical and Mechanical Services Department (EMSD). Besides, LD and EMSD are exploring measures to further enhance the work safety regarding the use of the tower working platforms, and have conducted a joint operation to inspect all tower working platforms to enhance work-at-height safety.
 - (c) In the latter half of 2012, seven fatal accidents involving electrocution occurred in the construction industry. During that period, LD conducted a joint enforcement operation with EMSD, and issued 49 SNs/INs and initiated 48 prosecutions. Together with the education and publicity activities as set out in paragraph 16 below, we managed to curb the rising trend of electrocution accidents in the fourth quarter of 2012. There was no record of industrial fatality involving electrocution in 2013. LD will continue to closely monitor the safety performance of electrical works and launch joint blitz operations with EMSD as and when necessary.
- (B) Strengthening monitoring of work safety of major works projects

12. As the worksites of major works projects normally involve the employment of a large number of workers and the undertaking of a large number of work activities of different trades that require coordination, it is necessary for

LD to further step up the occupational safety and health requirements of these projects. LD urges contractors to strengthen their site safety management systems in respect of high-risk processes, such as tunneling works and operation of heavy plant and machineries, etc., through strengthening the liaison with major works projects clients (including the Development Bureau, the MTR Corporation Limited, etc.). These enhanced measures include, for example, strengthening the participation of professional resident site staff in monitoring work safety and stepping up site safety audits for major works projects so as to eliminate the potential work hazards. To tackle systemic safety issues in a more effective way, LD will continue to urge contractors and site management staff to timely incorporate safety consideration in work method statements during the design, tendering and preparatory stages of the construction process. Through participation in project preparatory meetings and site safety management committees, LD urges contractors to implement effective site safety management systems and closely monitors their on-site implementation by the contractors. In addition, LD would monitor whether the resident registered safety officers have made recommendations in respect of the relevant occupational safety and health measures and standards to contractors and, in particular, whether they have rendered assistance to contractors in establishing safety management systems to prevent accidents.

II. Education and Training

(C) Enhancing the content of “Green Card” course

13. At present, workers shall, before joining the construction industry, attend a Mandatory Basic Safety Training (Construction Work) course (commonly known as the “Green Card” course) organized by training course providers which are recognized by LD. The training course takes one day and covers existing safety and health legislation and exemplary work practices, aiming at raising the safety awareness of workers and cultivating safe work attitude and behaviour. LD would require the course providers to update the course contents when necessary. In 2012, LD required the course providers to revise the half-day “Green Card” revalidation course by introducing case studies and analysis of serious accidents involving fall of persons from height, lifting operations and electrocution, etc., and to adopt an interactive teaching method and use clear and easy-to-understand illustrations with a view to facilitating workers’ understanding of the potential hazards of the high risk processes. The one-day “Green Card” full course will be revised in mid-2014 to include these case studies.

(D) Issuing work safety alerts

14. In recent years, LD has been releasing work safety alerts as early as possible after the occurrence of fatal or serious work accidents, giving a brief account of the accidents, through its website, emails and mobile applications to contractors, workers' unions, professional organizations of safety practitioners, workers, etc., with a view to reminding the industry of the importance of taking safety precautionary measures to prevent similar accidents.

III. Publicity and Promotion

(E) Strengthening thematic promotional activities

15. LD continues to launch the Construction Industry Safety Award Scheme in collaboration with the Occupational Safety and Health Council (OSHC) and the industry this year, to enhance the safety awareness of employers and employees. The scheme includes a territory-wide occupational safety and health competition, together with a safety quiz competition, roving exhibitions, promotional visits, TV/radio broadcasts, radio programmes, a fun day and an award presentation ceremony. The experience of the award winning sites will be recorded in DVD for dissemination to construction sites and broadcast in mobile media.

16. Last year, LD organized a series of electrical work safety promotional activities in collaboration with industry stakeholders and OSHC: we distributed publications on electrical work safety to stakeholders and issued safety alerts to registered electrical workers/contractors through electrical and mechanical trade associations and workers' unions. Apart from the enforcement actions as mentioned in paragraph 11 above, LD will continue to distribute publications on electrical work safety through electrical and mechanical trade associations and workers' unions to sustain the alertness of electrical contractors and workers.

17. LD, in collaboration with OSHC, organized an "Infrastructure Projects Safety Seminar" in December last year to explore with industry stakeholders the work safety and management of major works projects, including tunneling works and operation of heavy plant and machineries, and to share overseas expert experience in fostering safety culture with the industry.

(F) Conducting Site Visits and Roving Exhibitions

18. This year, LD will continue to collaborate with construction industry unions and associations to conduct visits to construction sites and organize safety talks. As at end-March this year, we visited over 130 new works sites and made

direct contacts with over 5 800 construction workers. In addition, we have collaborated with workers' organizations to conduct roving exhibitions at more than 50 locations in different districts of Hong Kong to disseminate safety message on RMAA works to workers. We have also produced simple and easy-to-understand occupational safety and health promotional leaflets in languages of ethnic minorities (including Hindi, Nepali and Pakistani) for the workers concerned.

IV. Safety Accreditation and Sponsorship Schemes

(G) Launching Safety Accreditation Scheme

19. LD and OSHC jointly launched the RMAA safety accreditation scheme in June 2012, which includes provision of safety training, subsidies for the purchase of fall arresting devices and safety audits for small-and-medium sized RMAA contractors. Through the cooperation of the Employees' Compensation Insurance Residual Scheme¹ Bureau, scaffolding contractors accredited under the scheme may obtain premium discounts up to 50%. As at early-March this year, OSHC has received over 70 applications from small-and-medium enterprises (SMEs) of the RMAA industry and accredited 16 of them. At present, the annual premium for a scaffolding worker is around \$120 000. A scaffolding contractor that is accredited as a "Gold Star Enterprise" can hence save up to \$60 000 in insurance premium for every scaffolding worker.

(H) Launching Mobile Platform Sponsorship Scheme

20. Among the fall-from-height fatal accidents, quite a number of workers involved were working on places of work which were just 2 to 3 metres above the ground. LD, in collaboration with OSHC, launched the "Mobile Platform Sponsorship Scheme for SMEs" in April last year, with funding of \$4.8 million allotted for subsidising contractors of SMEs to purchase mobile working platforms conforming with safety standards, with a view to minimizing the risk of workers falling from improper ladders. As at early March this year, OSHC has received 1 170 applications and approved 944 applications. Each applicant may apply for a subsidy of \$4,000, and around 10 800 workers have benefited from the scheme. With this scheme in place, LD arranged new radio broadcast early this year to promote the use of mobile platforms as substitute for ladders where practicable and to raise workers' alertness to the potential risk associated with working just a few metres above ground.

¹ Employees' Compensation Insurance Residual Scheme is intended to act as a market of last resort to provide relevant insurance services for employers particularly those engaging in high-risk occupations (such as the bamboo scaffolding industry).

Way Forward

21. In 2014-15, LD will increase manpower to step up inspection and enforcement as well as the following major work areas:

- (a) strengthening the monitoring of work safety of major works projects through the creation of an additional dedicated office;
- (b) strengthening the monitoring of construction projects involving compressed air work through the creation of a dedicated team;
- (c) enhancing systemic safety of the construction industry through engagement of major works project clients and promulgation of codes of practice on safe work systems and high-risk work processes; and
- (d) strengthening mandatory safety training for persons engaged in hazardous work/operations.

22. In collaboration with the Construction Industry Council, LD is formulating code of practices or guidelines in respect of safe systems of work and high-risk processes in the construction industry, in order to minimize work hazards of the industry from the source. We are also formulating a strategy with OSHC to further promote the RMAA safety accreditation scheme, and considering launching more sponsorship schemes to enhance the work safety of the industry.

23. In addition, LD will continue to jointly organize large-scale promotion activities with OSHC, major trade associations, relevant trade unions and other organizations, with a view to enhancing the safety awareness of employers and employees in the construction industry.

Advice Sought

24. Members are invited to note the contents of this paper and give views on the aforesaid measures.

Labour and Welfare Bureau
Labour Department
April 2014

**Industrial Accidents in Construction Industry
(2009 to 1st Three Quarters of 2013)**

	2009	2010	2011	2012	2012 1st three quarters	2013 1st three quarters
Total number of workers	50 501	55 341	62 635	71 295	71 534	79 050 [+10.5%]
Number of accidents	2 755 (19)	2 884 (9)	3 112 (23)	3 160 (24)	2 354 (13)	2 328 [-1.1%] (10) [-23.1%]
Accident rate per thousand workers	54.6	52.1	49.7	44.3	43.9	39.3 [-10.5%]
Fatality rate per thousand workers	0.376	0.163	0.367	0.337	0.242	0.169 [-30.4%]

Notes:

1. Figures in brackets denote the number of industrial fatalities which have been included in the number of accidents.
2. Figures in square brackets denote % change of the 1st three quarters of 2013 when compared with the same period of 2012.
3. Industrial accident statistics of the full year of 2013 will be released in late April 2014.

Annex 2

**Analysis of Industrial Fatal Accidents in Construction Industry
from 2009 to 1st Quarter of 2014**

	2009	2010	2011	2012	2013	1stQ of 2014	Total
Fall from Height	15	6	10	12	15	4	62 (58%)
Electrocution	0	1	2	7	0	0	10 (9%)
Lifting Operation	1	0	3	0	1	3	8 (7%)
Collapse of Structure/Soil	0	0	3	2	1	0	6 (6%)
Fall of Objects from Height	1	0	3	0	1	0	5 (5%)
Specialized Work Process	2	2	2	3	4	3	16 (15%)
Total	19	9	23	24	22	10	107 (100%)

Note :

Percentages in brackets denote the shares of total number of fatal accidents.