

# LegCo Panel on Manpower

## Improving Industrial Safety

### **INTRODUCTION**

In 1998, the number of persons engaged in industrial activities constituted about 28% of Hong Kong's working population. However, this sector accounted for 68% of all the work-related injuries under the Employees Compensation Ordinance. There is thus a need to tackle this problem and help the industrial sector improve its safety performance. This paper describes the Government's efforts to achieve this goal.

### **DISTRIBUTION OF INDUSTRIAL ACCIDENTS**

2. In 1998, there were 43,034 industrial accidents. Of these, 45.5% happened in the construction industry which had an accident rate of 248 per thousand workers in 1998 compared to the industrial average of 64.7 per thousand. A detailed distribution of industrial accidents in the major industries over the past five years is given below -

#### 5 Years' Accident Numbers and Accident Rates

Industry		1994	1995	1996	1997	1998
<b>Construction</b>	No. of Accidents	16 422	15 268	16 469	18 559	19 588
	Acc. rate/1 000 workers	275.03	232.7	219.9	227.4	247.9
<b>Catering</b>	No. of Accidents	12 750	12 536	12 417	13 069	13 011
	Acc. rate/1 000 workers	67.1	68.2	66.0	70.1	73.9
<b>Manufacturing</b>	No. of Accidents	10 706	9 189	7 205	7 196	6 334
	Acc. rate/1 000 workers	24.3	23.7	21.5	23.5	24.0
<b>Others</b>	No. of Accidents	4 286	4 008	4 160	4 481	4 101
	Acc. rate/1 000 workers	29.7	26.9	26.8	29.6	28.1
<b>All Industries</b>	No. of Accidents	44 164	41 001	40 251	43 305	43 034
	Acc. rate/1 000 workers	52.9	52.1	53.4	59.7	64.7

\* Note : The figures for 1997 and before were based on cases reported in that year.  
The figures for 1998 were based on cases that actually occurred in the year.

3. There are indications that safety performance in the industrial sector is improving in terms of absolute number and accident rate. Industrial accident statistics for the first quarter of 1999 recorded a **reduction of 20% in number and 15% in accident rate** over that of the same period in 1998, as shown in the following table -

Accident Number and Rate (per '000 workers)

Industry	1999Q1 No.	1998Q1 No.	Changes in number		Changes in rate
			+/-	%	
Construction	3104 (11) <sup>1</sup>	4295 (11)	-1191	-28%	-13%
Catering	2703	3094	-391	-13%	-17%
Manufacturing	1076	1446	-370	-26%	-16%
Others	859	845	+14	+2%	+2%
<b>All Industries</b>	<b>7742 (11)</b>	<b>9680 (11)</b>	<b>-1938</b>	<b>-20%</b>	<b>-15%</b>

<sup>1</sup>Figures in brackets denote fatalities

The reductions in the number of accidents in the construction industry and the accident rate in the catering industry are significant.

4. Based on the current trend of Form 2 returns (in respect of employee compensation claims) and past pattern, our projection is that the position for the first half of the year should be close to the following table -

### Industrial Accidents

Industry	1999 (first half) *(Projected Figures) No.	1998 (first half) (Actual) No.	Change in No.(+/-)	
			No.	%
Construction	6,900 ( 20 ) <sup>+</sup>	9,456 ( 28 )	-2,556	-27%
Catering	5,950	6,544	-594	-9%
Manufacturing	2,500	3,095	-595	-19%
Others	1,850 ( 1 )	1,996 ( 3 )	-146	-7%
<i>All Industries</i>	17,200 ( 21 )	21,091 ( 31 )	-3891	-18%

(\* Based on position as at 14.9.99)

(<sup>+</sup> The figures in brackets refer to the actual number of fatalities)

The continuing improvements are encouraging. They suggest that our revised promotion and enforcement strategies are beginning to work through the various industries, particularly those with less satisfactory performance in the past.

## **OVERALL STRATEGY OBJECTIVES**

5. In view of the relatively high accident rate of the construction industry in the industrial sector, the Labour Department has introduced special measures to deal with this industry as well as additional plans to improve the safety in other industrial establishments. The following sections set out our action in the construction and non-construction industries.

## **SAFETY IN CONSTRUCTION**

6. At a meeting of the Legislative Council Manpower Panel on 22 April, 1999, the Labour Department presented a paper on "Measures to improve industrial safety in the construction industry". The following paragraphs explain the new initiatives in respect of construction safety.

### **(a) Study on Causes of Poor Performance**

In the past, various organizations have commissioned ad hoc studies on the problems and causes of accidents in the construction industry but there were very few substantive recommendations which had been followed through for one reason or another. In August this year, the Housing Authority's Building Committee decided to engage a consultant with both local and overseas experience in developing a site safety strategy. The Labour Department has been invited to advise and help steer this study. This is probably the first serious attempt to study the causes of construction-related problems. The strategy recommended by the consultants will identify the functions and responsibilities of each party in the construction business for the Housing Authority, including management, consultants, contractors, site supervisory staff and workers. The study will take five months to complete after its commissioning. The Labour Department hopes to work with the consultant to recommend a practical approach for the benefit of the Housing Authority and promote best practices among other major players in the local construction industry.

### **(b) Improved Statistical Analysis**

The Labour department has a rich database of industrial accident reports and accident investigation cases. We have recently installed an additional computer server to extract useful industry-based and

organization data for enforcement and targeting purpose. We have also commenced a feasibility study of a management information system for occupational safety and health which aims to provide a comprehensive system of supporting strategic planning and performance monitoring functions. These two developments will help both ourselves and the industry deal with the problems objectively and squarely. We intend to publish a series of fact sheets on various types of accident analysis, with supporting details, for general circulation.

**(c) Budget for Safety**

We believe that the cost of construction safety should be **separately accounted for** and form a distinct budgetary item, otherwise the requirements for safety-related works, equipment etc. may be sacrificed or lost in the subcontracting system or in the case of exceptionally low bids. The success of the “pay for safety” scheme in public works reinforces our belief. Since November 1998, the Works Bureau have strengthened the requirement for the provision and proper use of personal protective equipment in all its works contracts including safety shoes, safety harness, hearing aids etc. In August this year, the Housing Authority has decided to launch its own Pay for Safety Scheme similar to the Works Bureau model. We have written to all the major private developers and urge them to accept safety as part and parcel of a project budget similar to the public sector model.

**(d) Regulatory Proceedings**

An effective way to make building contractors focus on safety is to correlate their safety performance with their tendering opportunities for new contracts. The Works Bureau first introduced in 1994 administrative sanctions against contractors who had been convicted of six site safety related offences over a rolling six-month period or who had incurred a serious accident on site. Such contractors had to appear before a Panel of Enquiry which will consider the written and oral representation of the contractor and decide on the appropriate regulating actions to be taken including suspension from tendering. The procedures were modified and streamlined in 1999 and the criterion of six convictions was tightened to five convictions. These measures have proved to be more effective than court action in financial terms and strengthens the impact of our enforcement work. Since January 1999, a total of 17 Panels has been held, 12 contractors have been asked to refrain from tendering and three have

been seriously warned.

We note that the Housing Authority's Building Committee has recently agreed to accept the findings of the Works Bureau's panel of inquiry as binding on these contractors' eligibility to tender for HA projects. This means that if a contractor is found to be at fault in a hearing arising from a HA site, his eligibility to tender for **both** HA and public works projects will be adversely affected. In the current market conditions where most contractors are desperately looking for work, this additional sanction will put a lot of pressure on public sector contractors to perform adequately on all safety matters.

Our next target is the private site contractors which are hitherto not affected by these sanctions. The subject was extensively debated at the recent Construction Advisory Board meetings. Some members suggested that the poor safety performance of these contractors should be taken into account when the Buildings Department considered their continued eligibility to remain on the various contractors lists. We would explore this feasibility with the Buildings Department having regard to the legal and other implications.

**(e) Legal Liability of Natural Persons**

All systems have to be implemented by natural persons. However, our established practice is to go after a company rather than a natural person. In the process, we may have allowed the person or persons who have been negligent in carrying out their duties to get away unscathed.

In response to this concern, we consider it appropriate to adjust our prosecution strategy. We shall identify suitable cases to prosecute natural persons for **specific** failures to manage a site properly. In the long run, we may have to consider **amending our safety laws to facilitate this type of action.**

**(f) Proper Control of Site Activities**

In the last year or two, an increasing number of private developers are nominating their own subcontractors to undertake certain specific activities such as electrical and mechanical installations, building services work etc. on various sites under construction alongside with the principal contractor. In contrast to previous contract arrangements, the principal contractors have no idea of, or say on, who should be appointed to undertake such work even

though they are, under contract, responsible for their site safety and quality performance. Many principal contractors have expressed concern over this development since they are held accountable for activities and workers over which they have little or no control.

To tackle this problem, we would consider also holding these subcontractors liable for specific failings, otherwise they will not be cooperative with the main contractors on site safety issues. We would also raise our concern over this development with the relevant private developers to remind them of the shortcomings of this type of contract arrangement.

To facilitate prosecution of subcontractors, we are considering amending regulation 2(2) of the Construction Site Safety Regulation in such a way that both the contractor and subcontractors, whether nominated or domestic, can be held jointly and severally liable for safety and health offences.

**(g) Adequate Training of Workers**

It is widely recognized that adequate training in safety awareness and skills competency are crucial to reducing site accidents. To this end, we welcome with the passage of the mandatory basic safety training requirements in the Factories and Industrial Undertakings (Amendment) Ordinance 1999 in July and the Factories and Industrial Undertakings (Confined Spaces) Regulation in January 1999. We have recently submitted a new Factories and Industrial Undertakings (Loadshifting Machinery) Regulation governing the training of operators of earth-moving equipment and forklift trucks. This new regulation is now being examined by a Legislative Council Subcommittee.

We also recognize that when workers are paid a daily wage, they tend to work with different contractors and move around different sites. It is therefore difficult to expect the contractors to invest in their long-term training and career planning. Since early this year, the Government has publicly pledged its support for the use of more direct labour. The industry and its major players (Hong Kong Construction Association, Construction Industry Training Authority, Hong Kong Institute of Engineers, Real Estate Developers Association, Hong Kong Construction Industry Employees General Union) have also come out in support of this initiative which involves, in some cases, the employment of CITA graduates. In August this year, the Housing Authority's Building Committee has

shown an interest in **the use of a proportion of direct labour in certain critical activities on their works contract**. It will also study the subcontracting system with a view to reducing the problems associated with multiple layers of contractors. We have taken part in these discussions and will continue to push for a greater use of direct labour in public sector contracts.

**(h) Safety Professionals**

The construction industry has relied heavily on Registered Safety Officers (RSOs) in accident prevention on construction sites. However, the industry also noted that many RSOs have left the trade for greener pasture, and some do not spend enough time on site to tackle the problems there. We have to change the RSOs' perception of their legitimate role and **enhance their managerial function** on site. This we will do through suitable amendments to the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulation. In this context, we shall also propose to require Safety Supervisors to be working **full time** on site because they are the front-line personnel with the most direct influence on workers' behaviour.

**(i) Concerted Safety Promotion Efforts**

For many years, the Housing Authority, the Works Bureau, the Occupational Safety and Health Council and the major contractors have been organizing their own safety promotion events. There is no industry focus with due regard to the most prevalent hazards on their sites. Too many activities with different themes at any one time tend to dilute the impact of these campaign activities. At a recent coordination meeting with the Housing Department, the Works Bureau and the Occupational Safety & Health Council, we agreed to take the lead in coordinating safety promotion events this year as well as identifying the themes for the next two years with an expanded list of key players in the industry.

For this year, we have already started a sponsorship drive for three main programmes:-

- (i) A Safety Banner Scheme;
- (ii) A Personal Protective Equipment Campaign; and
- (iii) A Territory-wide Construction Safety Award Scheme.

These activities will be launched in stages starting from October and ending next March. Our intention is to bring the top management

and the site supervisory staff on board. In next year's programme, the focus will be on the workers, co-workers and their family in the safety campaigns.

**(j) Targeting Contractors with High Accident Toll**

Our announcement of targeting enforcement action against construction companies with the highest action numbers in March 1999 has sent a very clear signal across the industry which, together with more disciplinary hearings by the Works Bureau (see para 6(d)), is causing senior management to take their site safety more seriously. We shall approach new target companies through initial discussions, advice and stringent enforcement.

We have further enhanced the effect of **suspension notices**. Recently, we have come to an agreement with the Works Bureau, the Housing Authority, the two Railway Corporations, the Housing Society and the Land Development Corporation that we will notify their headquarters project staff where a suspension notice issued to any of their contractors remains outstanding for over two weeks. In this way, we will get the developers involved in site safety issues which have a direct bearing on their project progress. They may exert pressure on their contractors to rectify the substance of the offence and/or initiate their own internal actions.

**(k) Safety Management**

Notwithstanding what has been said above, we need to rely on the self-regulation of contractors to put their own house in order. The Factories and Industrial Undertakings (Safety Management) Regulation will provide a legal framework for implementing such a system. Through a system of audit and review, as well as consultation in a safety committee, the contractors will have the benefit of periodical checking of their system of work by an independent person and the feedback from their own workers and supervisory personnel. We plan to submit the proposed regulation for Legislative Council approval in October.

**(l) Construction Method**

In our recent analysis of serious and fatal accidents, we have identified a number of causes being related to construction method rather than individual workers' behaviour. For example, in mounting pre-cast form work which obviates the use of extensive



scaffolds, working at height opportunities are reduced but it does create a different set of problems such as fixing joint alignments. Also in the dismantling of formed work, there should be clear safety precautions against falling objects. These are industry-wide issues which we will raise with the contractors.

On the positive side, some contractors have experimented the use of 'jump lifts' with some success. It involves the installation of lifts during the construction - rather than the final - stage so that it can replace the use of passenger and material hoists that are much more hazardous as a carriage device. We will help the more innovative contractors improve the degree of mechanisation and introduce these good practices through liaison and contacts with the major developers and contractors.

## **SAFETY IN NON-CONSTRUCTION INDUSTRIAL ACTIVITIES**

7. While we accept that the restructuring of our economy has resulted in the relocation of some hazardous industrial processes out of Hong Kong, we should not lose sight of the continuing problem of poor safety awareness, inadequate risk assessment knowledge and a lack of the commitment or resource to make improvement in the other industrial sectors. In the short and medium term, we intend to reach out to as many factories and industrial undertakings as possible to offer our service, and impress upon the stakeholders the benefits of work safety. The following section sets out our current action and plans -

### **(a) Legislation**

#### **(i) Notification of workplaces**

We intend to amend the Factories and Industrial Undertakings Ordinance and some of its regulations to strengthen the requirements for notification of commencement of industrial operations. Currently, a proprietor of a notifiable workplace must, before any industrial process or operation is commenced, notify the Commissioner for Labour of the particulars. A notifiable workplace includes a manufacturing or catering establishment. The current problem is that many proprietors of these establishments fail to notify us, and by the time we discover them, it is already over six months, and prosecution against their failure to notify has become statutorily barred under the Magistrates Ordinance.

We propose to amend the Ordinance and three regulations made thereunder to allow prosecution to be taken out within six

months of our discovery of the establishment. We believe that earlier knowledge and a more comprehensive database on the industrial establishments will enable us to offer them timely advice and enforce the safety laws more effectively.

**(ii) Safety Management and Workers' Training**

The regulation on safety management mentioned in item (k) above will apply to most factories and industrial undertakings employing 50 or more persons. It will help these larger undertakings implement a safe system of work and other benefits mentioned above. We have undertaken to review its operation one year after it has become effective with a view to expanding its application to smaller industrial undertakings. The loadshifting machinery regulation mentioned in item (g) above will enhance the safe operation of forklift trucks used mainly in handling cargo in godowns, storage depots and container yards. Through the implementation of a safe system of work and employment of trained and competent workers, we hope to reduce such accidents in these industrial undertakings as well.

**(b) Promotion and Education**

**(i) Safety Award for the Catering Industry**

It is evident from the Accident Statistics Table (page 1) that catering accidents are second highest after construction. Since most of the accidents in this industry are minor in nature and due mainly to poor house-keeping, we have launched in July this year a territory-wide safety award scheme for different categories of catering establishments to promote good house-keeping. A total of one hundred establishments have entered in the competition, and a number of prizes will be presented to winning companies, individual workers and safety personnel to encourage them to continue their good efforts in keeping the workplace safe and free of health hazards.

**(ii) Contact with Small and Medium-sized Establishments (SMEs)**

Because of their low hazard ratings and relatively fewer accident occurrences, many of the small and medium-sized establishments will only be visited by our professional officers once every few years. To keep them aware of services and information available from the Labour Department, we have, in

conjunction with the Social Welfare Department, launched a new initiative in July 1999. We have recruited over 200 volunteers to help promote our occupational safety and health services. After some basic training, these volunteers are visiting specified trade premises such as chemical retail shops, pet shops, and small eating outlets. They will briefly explain the booklets on safety laws, risk assessment guides and best practices relevant to their trade. If necessary, they can refer SMEs to our staff for professional advice. Our plan is to call on about 10,000 SMEs under this initiative by the end of September. We also have plans to visit another 8,000 SMEs under the Department's participation in the Youth Pre-employment Programme.

**(iii) Use of Personal Protective Equipment (PPE)**

To pave the way for a proposed regulation to be made under the Occupational Safety and Health Ordinance on the use of PPE, we will soon start a major publicity campaign, which includes radio and TV publicity, give-away PPE items and a subscription programme. This publicity drive follows the success of last year's campaign on the use of safety shoes and hearing aids. Our focus this year will be extended to other types of PPE such as eye goggles, gloves, protective clothing, hearing muffs, dust masks etc. In March 2000, an international seminar and trade exhibition on PPE will be mounted to promulgate the message that hazards can best be eliminated through engineering control methods. Should this be impracticable, suitable and appropriate PPE should be provided and used for the protection of workers.

**(c) Advisory Visits and Enforcement**

We have reorganized our field staff and established six Integrated Service Teams to tackle employers with a high accident toll and areas involving our occupational safety, hygiene and medical professionals. This multi-disciplinary approach has proved effective in tackling the OSH problems of large and complex organisations such as hospitals and tertiary institutions. Feedback so far is very encouraging. Our intention is to launch the next phase of integration which takes a top-down approach in influencing the stakeholders to introduce management changes. This type of audit visits have brought down the accident numbers in many establishments. We are keeping track of their performance over a longer period to evaluate the benefits of such an approach.

## **CONCLUDING REMARKS**

8. On the whole, we are reasonably confident that the improvements for the industrial sector during the first half of 1999 can be sustained. The new measures and initiatives described in this paper should further drive the accident toll down. We do, however, need the Legislative Council's support in agreeing to the legislative changes which have been endorsed by the relevant advisory boards and bodies.

Labour Department  
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